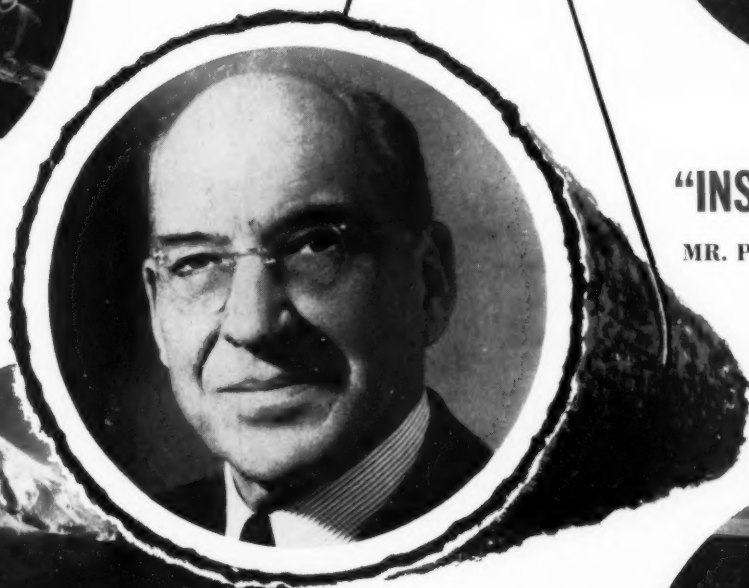


American

FORESTS

APRIL 1956

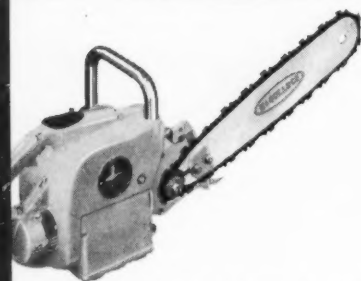
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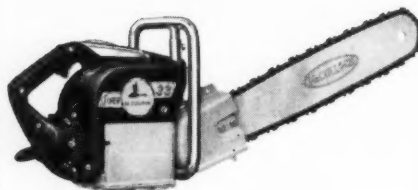
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MR. PRESIDENT . . . Page 10

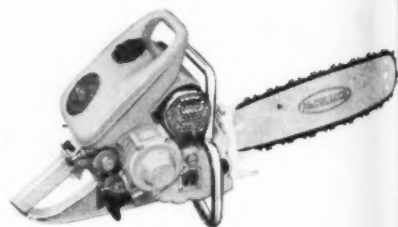
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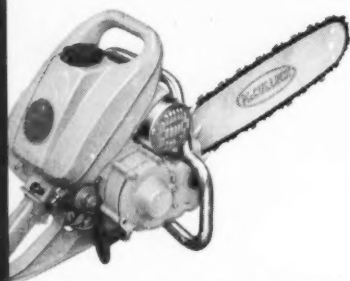
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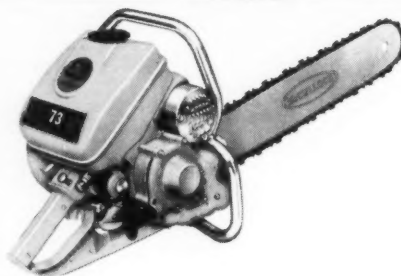
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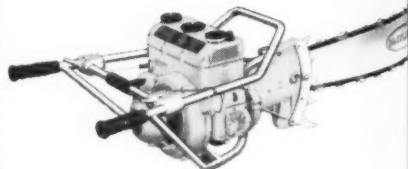
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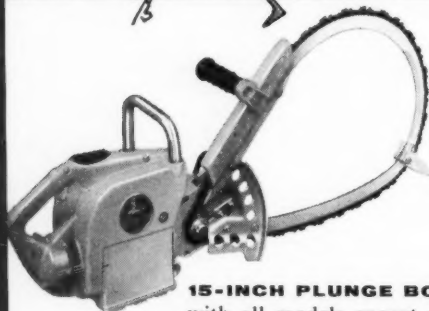
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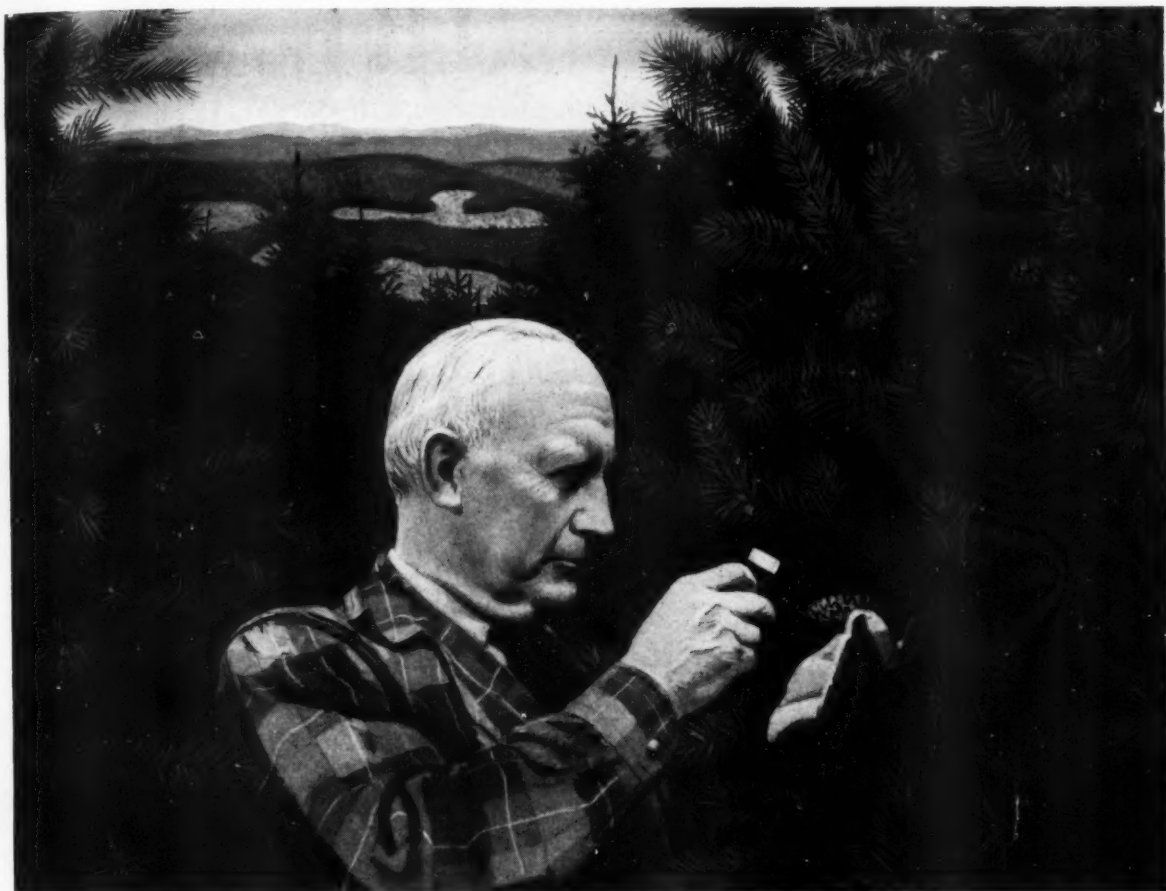
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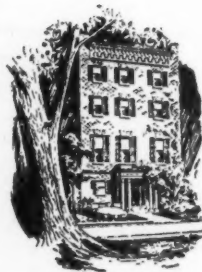
James J. Fisher
Art Director

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The AFA

The American Forestry Association, publishers of *American Forests*, is a national organization—independent and non-political in character—for the advancement of intelligent management and use of forests and related resources of soil, water, wildlife and outdoor recreation. Its purpose is to create an enlightened public appreciation of these resources and the part they play in the social and economic life of the nation. Created in 1875, it is the oldest national forest conservation organization in America.

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Letters

Farm Forestry

EDITOR:

I read John F. Preston's article "Is Farm Forestry on the Wrong Trail" in the January 1956 AMERICAN FORESTS with interest, and also concern. Based on my New England experience and knowledge of projects in other parts of the country, I am of the opinion that Mr. Preston has written a misleading article, an article which ignores the progress in farm forestry in the past 15 years or so, and overlooks the day-to-day problems and accomplishments of the dedicated men engaged in farm forestry service.

He states: "There are not enough farmers growing wood as a farm crop. There are too few farmers making their woodlands contribute a fair share of the farm income." On what basis does he make these statements? Did he do any real research in different sections of the country before writing this piece? Did he spend any time in the woods with farmers, agricultural leaders, and foresters before taking pen in hand?

Here in Maine our educational programs and service programs in farm forestry, whether they be sponsored by the University Extension Service, Maine Forest Service, Soil Conservation Service, or other groups public or private, are planned in part by the very farmers and woodlot owners who will receive forestry advice. These groups are well coordinated, the efforts of one man complementing the work of another. The progress in the past ten years has been considerable, and measurable by any one of several standards. A powerful influence in the past several years has been the Tree Farm program of the American Forest Products Industries which, in Maine at least, has crystallized thought and action toward application of more forestry on small woodlots. Of Tree Farms, Mr. Preston said nothing.

I agree with Mr. Preston when he says that farmers are capable of starting and carrying out good forest management without technical assistance. Some of Maine's best small woodlots today are examples of good management by good horse sense. In one case, we have a farmer near Bangor who has supplied his farm with fuel, lumber, and cash income from sale of logs and pulpwood off thirteen acres for more than fifty years. On the other hand, we have a number of farmers whose farm woodlots include between 500 and 1000 acres and contribute a sizeable part of the farm's annual cash income. But in nearly every case, common sense carries the job only so far before a wrong observation or decision may jeopardize the success of the management program. That is one point where trained foresters can and should guide the management.

While it is true that the forester should not use technical terms, the farmer does not understand, I am convinced, that it is also true that the forester should not be afraid to teach the farmer to use technical information available through research. This will entail some learning of technical words, but the successful farmer who can guide the breeding of animals, control the fertility of his land, and handle his business affairs, can also learn and apply some technical aspects of forestry. The use of sodium arsenate for debarking of pulpwood,

and the use of 2,4-D and 2,4,5-T for killing weeds are two examples of this. And the less successful farmer whose formal education may be rudimentary can be trained in the proper use of chemicals and other new developments as long as he has some native ability and powers of observation.

Mr. Preston has been sold on the use of the D+ system of thinning trees. Has he ever tried to make it work? I do not recommend this method of thinning and have urged others to discard it because if not used with great care, the owner will cut some good trees, leave some poor ones, and end up with poor spacing, all the while believing that he was doing a good job. The very simplicity of the method defeats its own purpose. Tree selection for thinning or improvement should consider soils, markets, tree health, species involved,

insects, disease and many other factors. To reduce tree selection to mathematics is folly, except in uniform plantations, and there another formula has been suggested. And this second formula still ignores the problems of economically felling trees in a close-spaced plantation.

I would be more than pleased to discuss this further with Mr. Preston by letter, or in the woodlots of Maine. I think I could show him that the work of past years has not been in vain.

Lewis P. Bissell
Forestry Specialist
University of Maine


EDITOR:

I think that I have kept reasonably close touch with the farm forestry situation through my correspondence course in f.f.


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
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
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WILDLIFE CONFERENCE

(L. to r., seated) Federation's hon. president John L. Curran, president Claude D. Keiley (standing), vice-pres. Paul Herbert, Roland McClamroch



All Photos by The Times-Picayune



Dr. Ira N. Gabrielson of Washington, D. C., keynoted meeting

By JAMES B. CRAIG

CAN wildlife refuges, administered by the Fish and Wildlife Service, be managed under multiple use principles such as those followed by the Forest Service of the Department of Agriculture or will this type of management tend to defeat the purpose for which the refuges were established in the first place? This was the principal conflict that was joined at the 21st North American Wildlife Conference last month in New Orleans and the

meeting found protagonists for both schools of thought out in full force.

Multiple use is already a reality on many wildlife refuges, most of the land managers at the big conference will concede. *American Forests*, for example, has published articles in recent years by wildlife specialists pointing to the fact that sound forestry operations on refuges have proven beneficial to the game and have also provided the refuges with supplemental income.

While forestry and wildlife may go well together in certain areas, oil and gas leasing is something else again, the same management men declare. It's here that the gloves came off at the meeting attended by over 1,000 sportsmen and professionals. With most of the controversy centered around the new leasing regulations recently announced by Secretary of Interior McKay, the meeting saw a fighting John L. Farley battling for the multiple use convictions he espouses as director of the Fish and Wildlife Service. Multiple use—including oil and gas leasing—will work on some of these lands and is already working with the priority of the wildlife fully protected, he told the delegates.

However, Mr. Farley—up to this time at least—is outnumbered. The prevailing sentiment at the meeting was against oil and gas leasing in any form on the refuges. That was not the purpose for which they were intended, delegates argued stoutly. Leasing certainly won't improve the habitat, like forestry, and will probably harm it, others argued. We don't even need the oil, others said. Still others cast aspersions at the basic integrity of certain Interior officials although this sentiment diminished as Mr. Farley was seen participating in every floor session throughout the meetings. People also liked the way the director replied to a delegate who asked him what he would do if the findings of his career specialists were overridden on leasing studies. "This hasn't been put to the test yet but I can tell you this," Mr. Farley said. "If our considered conclusions are vetoed, I won't be there any longer."

Keynoter at the meeting and the leader of the "anti-leasing" faction

(Turn to page 48)

The advisability of managing wildlife refuges on a multiple-use basis, including gas and oil leasing, was the most controversial question discussed by delegates attending the twenty-first North American Wildlife Conference in New Orleans

Letters

(From page 3)

in the Grad. School USDA. I have students in 14 states from Washington to New Hampshire to Alabama. Each student is asked to talk to at least 10 farmers and ask them prescribed questions about what their understanding is about farm forestry and to what extent they practice it. I get these results and in addition I have the opportunity to talk to many foresters who visit Washington.

I did not, of course, mean to discount the good work that is being done in such places as you mention in Maine and in many others. However, for the few places that we have been able to really change farmer attitude and philosophy about farm forestry, there are such a tremendous number of farmers in other spots who do nothing with their woods or let the wood buyer manage them. The foresters alone can not reach all the farmers and there will never be enough for that purpose, even if it were desirable.

The fundamental thing that I am trying to emphasize is that our education must first get farmers to accept "Wood as a farm crop." Maybe you are succeeding in that effort in Maine. I hope you are, but so often we teach and practice commercial forestry—stumpage forestry I call it.

About the D plus rule. That, of course, is a mechanical tool somewhat similar to the marking ax. It's useful and it has proved to be easily understood. It has nothing to do with silviculture. As much or as little of that can be used as farmers are able to put into practice. D plus does not prevent silvicultural practice; in fact it tends to reduce its application from an acre to a square rod basis, and that simplifies it and I think makes it easier for a farmer to understand and apply.

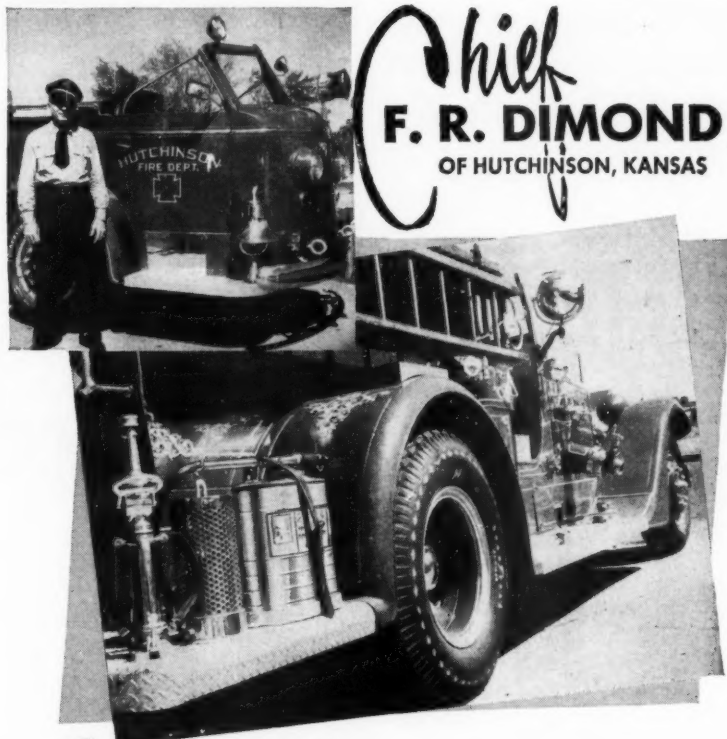
My chief plea is that we try to get all agriculturists to help us get farmers to accept forestry as a farm activity and wood as a farm crop. Wood as a farm crop is a vastly different proposition than commercial forestry. Can't we recognize that fact and act accordingly? Is the growing of a wood crop so difficult that a farmer can not undertake it without a forester constantly looking over his shoulder? They grow forage grain and livestock crops pretty much "on their own." Let's get the wood crop on a similar basis; then farmers will ask for the technical help.

Thank you for writing. I wish I could go to Maine and see some of the work there. I am sure there would be much that would be called good by any standard.

John F. Preston
Washington 7, D. C.

(Editor's Note — Using the woodlots of Maine as their laboratory, *American Forests* believes that an on-the-ground examination by these two fine foresters, working together, could result in a valuable contribution to American forestry. *American Forests* will be glad to underwrite Mr. Preston's expenses to Maine providing both he and Mr. Bissell will agree to publish their respective findings in a future special issue of our magazine dealing with farm woodlot forestry. More letters in reference to Mr. Preston's article will be published in future issues.)

(Turn to page 55)



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"Do what's right" is the motto of this Forest Service veteran who will be the new Chief Forester of the AFA

POMEROY named AFA Forester



Kenneth B. Pomeroy, of the U. S. Forest Service

KENNETH B. Pomeroy, chief of Forest Management at the Northeastern Forest Experiment Station, with a 23-year background of research and administrative experience in the Forest Service, has been named Chief Forester of The American Forestry Association effective July 1. According to the announcement made by President Don P. Johnston as AMERICAN FORESTS went to press, the appointment had the unanimous approval of the association's executive committee.

"Research—especially forest management research—must be regarded as one of the principal levers in the activation of AFA's Program for American Forestry," Mr. Johnston said. "This is true of each of the three big goals of the program which are improved protection, timber of better quality, and improved methods in applying multiple use on forest lands. For this reason, we consider ourselves most fortunate in being able to attract a man of Mr. Pomeroy's caliber and professional stature to the association. His research accomplishments, especially in southern forestry, have been widely acclaimed. His organizing

ability was demonstrated last year while serving as program chairman for AFA's Florida meeting."

Mr. Pomeroy moved to the Northeastern station at Upper Darby, Pennsylvania, early this year after serving as leader of the Lake City, Florida, Research Center for five years. Although the new technique of bark chipping and acid treatment for gum production from slash and longleaf pines was developed prior to Mr. Pomeroy's arrival in Florida, it was his interest that stimulated cooperating organizations into "plugging" this new labor-saving method with publications, pilot plant demonstrations, radio, special training sessions and TV programs until it gained wide acceptance. This successful combination of research and promotional activities resulted in praise from Judge Harley Langdale, president of the American Turpentine Farmers Association.

Painstaking research, no matter how brilliant, is meaningless unless it is translated into action that benefits tree growers, Mr. Pomeroy stresses. As members of his research groups will attest, he has always insisted that his scientists "get pub-

lished" as soon as they have solid findings to report and in general to present these findings in understandable terms for the public benefit. So successful was Mr. Pomeroy in serving the public in this respect that considerable opposition was expressed in southern areas when he was promoted to the Upper Darby position. Work he supervised in Florida in addition to gum naval stores production included genetics research aimed at development of special strains of slash pine of superior gum yield, regeneration and management of southern pines, control of destructive pine bark beetles, and the integration of beef and timber production on wild lands.

With the close cooperative assistance of the Florida Forest Service, the Atlantic Land Improvement Company and the Collier Company, Mr. Pomeroy initiated a research program in southern Florida for the purpose of reforesting the denuded lands and for developing techniques for management of the native range. With a million head of beef cattle in an area where 40 percent of the ground may be covered with un-

(Turn to page 53)

Washington



Lookout

By ALBERT G. HALL

THE IMPACT OF DAMS, POWER LINES, URBANIZATION, HIGHWAYS, AND AGRICULTURE EXPANSION

on the availability of land for growing timber is such that preventable losses of forest land must be looked upon critically. The Congress is now being asked to take such a look at the McGee Bend Dam in east Texas. Preliminary construction work started on this \$50,000,000 project last year. The budget for the Fiscal Year ending June 30, 1957, includes \$4,000,000 to advance construction of the dam which will inundate 129,000 acres of which 122,000 are in forest, 28,000 of them in the Angelina National Forest. Since the dam was first conceived in 1936, and since it was approved in 1945 on the basis of a Corps of Engineers report of 1939, many significant changes have taken place in the forest economy, and particularly in the local economy affected by the dam.

THE TEXAS NATIONAL FORESTS which did not exist, as such, in 1936, and which were still in the process of acquisition in 1939, are now thriving timberlands making timber available to the industry of east Texas while building up growing stock for the future. About one-third of the annual growth is harvested each year, the rest is permitted to remain as a capital asset until full stocking of the stands is achieved.

INDUSTRIAL FORESTRY LIKEWISE HAS MADE RAPID STRIDES in East Texas. The private lands to be inundated are for the most part owned by a half-dozen large forest industries and are under sustained-yield management. New plants have been constructed for increased efficiency and better forest products, plants involving considerable investment, predicated on continuing supplies of high-quality raw material, both pine and hardwoods. The stumpage and product value of the annual growth of the 122,000 acres to be eliminated from production, forever, if the dam is constructed as planned, is estimated to be well in excess of \$4,000,000. This amount would be lost to the community; but this loss has not been considered in arriving at net benefits from the dam, now estimated at less than \$1,000,000 annually.

PRINCIPAL BENEFIT TO BE DERIVED FROM THE DAM is increased water supply for placing 270,000 acres of land below the dam into rice culture. The water would supply 90,000 acres each year of the three-year crop rotation period, and would result in 100 million pounds of additional rice production. There is a large surplus of rice in the United States, most of which is in Commodity Credit Corporation stocks. Rice is supported by parity payments, and last year in Texas alone 8,612,734 pounds of rice were under price supports. Acreage allotted to rice in 1955 was 22 percent below that of 1954, and the 1956 crop will reflect another 15 percent reduction. Bringing new rice acreage into production, in the face of mounting surpluses and no relief in the foreseeable future, at the expense of the forest economy is one of the factors to be considered by the Congress in weighing the merits of the requested appropriation.

OTHER BENEFITS FROM THE DAM INCLUDE HYDROELECTRIC POWER. The plan calls for the construction of a 45,000 kilowatt generator, to supply peak loads. This will not be operated on a 24-hour basis. Independent engineers estimate that on the basis of east Texas experience an equal amount of power could be supplied

(Turn to next page)

24 hours a day with a gas-powered generator for which the construction costs would total \$5,000,000. Texas has ample natural gas to power such a plant. Recreational benefits have been expressed, but the dam area will not, under present plans, be cleared of vegetation, except in the pool close to the dam. The rest of the area will be cluttered with stumps, snags, cull timber, and tops which will place definite limits on the recreational possibilities. While this debris will contribute to fish and waterfowl habitat, it will definitely preclude boating. Benefits to flood control are estimated at \$260,400; power \$898,800; water supply, \$1,716,000; recreation and wildlife, \$418,600, for a total annual benefit of \$3,293,800. Total annual costs as computed by the Corps of Engineers are \$2,366,600, leaving a net annual benefit of \$927,200. But the loss to the forest economy of at least \$4,000,000 annually completely offsets the net benefit and produces a net loss of more than \$3,000,000. The Congress is being asked to delay this appropriation until a comprehensive study is made of the project in light of today's economy.

SOIL BANK LEGISLATION, in contrast to the project above, is seeking to take surplus agricultural land out of agricultural production and place at least some of it into grass and trees. Tied to the 1956 farm bill, the soil bank aspects have received little attention so far, most of the debate being on the question of parity payments. Principal opposition to the forestry phases of the soil bank is centered on the subsidies that are proposed for tree planting and tree culture. Persons who voluntarily and with their own funds have planted for sawtimber, pulpwood and Christmas tree crops, and who have managed their timberlands without subsidy may find themselves at a competitive disadvantage with those whose forestry work is in part tax-supported. Opposition also has risen to the proposed price reporting of forest products which has been included within the farm measure. It is obvious that price reporting will not have any effect on the establishment of the soil bank; but it may lead to eventual parity payments for forest products.

A STUDY OF PUBLIC LAND OWNERSHIP on a state-by-state basis is proposed by Senator Russell Long of Louisiana. The Long Bill, S. 3444, provides for the creation of commissions in each state, if requested by the governor of the state, to study the effects of federal ownership with respect to timber and grass production, watershed protection, wildlife, recreation, industrial and community stability, and the relative economic benefits of federal, state and private management in terms of administrative costs, tax and other monetary returns, employment, competition and other factors. The commissions would be composed of both federal and state members. Each commission would report within three years its findings and its recommendations for such adjustments of the ownership pattern as are warranted by the findings. The President then would prepare a plan for transmittal to Congress embodying his recommendations for retention or disposal of certain federal lands. Excluded from disposal under the proposed legislation are national parks, monuments, recreation areas, military parks and battlefields and similar national shrines, wildlife reservations, wilderness areas, and other areas of national importance.

A LARGE SCALE PROGRAM OF TIMBER ACCESS ROADS is proposed by Senator Wayne Morse of Oregon in S. 3420. This bill has about the same objectives as previous access road bills introduced by Senator Morse: authorizations of \$32 million for 1958, \$40 million for 1959, and \$50 million each year thereafter for 10 years. Included in the bill is the language and intent of the access road sections of the Hope Bill, H.R. 7118, the omnibus national forest bill, now before the House Committee on Agriculture. This provides authority to the Secretary of Agriculture to enter into cooperative agreements with owners and users of adjacent lands for joint use of road systems. The bill also proposes a \$3 million revolving fund for access roads on Indian lands, with road expenditures to be reimbursed from the proceeds from the sale of Indian timber.

THE FIRST MAJOR CHANGE IN O & C MARKETING AREA BOUNDARIES has been approved by the Department of the Interior. The Columbia Master Unit marketing area in Oregon has been revised to include Clatsop County and portions of Columbia, Tillamook and Washington Counties, not previously included within the area.

EDITORIAL

A TIME FOR GREATNESS

As The American Forestry Association rounds the 80 year milestone and heads for its centennial 20 years away it pledges itself anew to the task of achieving the "Big Three" goals for forestry as set forth in its Program for American Forestry. The profession of forestry, both public and private, has gained in accomplishment and stability over the decades. While much remains to be done, the pattern of cooperative effort by the federal, state and private agencies has doubled the forestry effort in the past 20 years alone. It can and will be doubled again in the next 20 for forestry is truly united and on the march in America today. It has been accepted into and has become an integral part of the very economic fabric of the nation. Thus it has won its place in the sun and its future is now assured.

With its position secure, this is a time for greatness in the history of the forestry movement. It must think boldly and imaginatively not only in terms of its own goals but also in terms of the public's stake in its programs. It must develop the inquiring mind as it seeks, in cooperation with others, to work out satisfactory patterns of management with the other renewable natural resources of soil, water, wildlife and outdoor recreation. It must avoid above all things the risk of isolating itself from kindred programs for no man or group of men can exist as an island in the complicated pattern of people in their relationship to land that exists in America today. As it aspires to grow quality tree crops, so it should seek to bring young men and women of quality under forestry's professional banner. Whether it be the growing of tree crops or enlisting of new personnel, the emphasis from here on out should be on quality. As it does these things, forestry will grow and prosper.

Just as forestry has grown over an 80 year span, so has The American Forestry Association. More than 1,000 new members have been welcomed into the association's membership in the last 12 months alone and the trend continues up. In view of an 80th birthday, we believe our members who have contributed so much should have a voice in this space reserved for comment on this special occasion. In dedicating ourselves to the task ahead, we believe it is fitting, therefore, to present once again the highlights of the forest program that they created, forged and adopted. Accordingly, we herewith present the "Three Important Goals for Forestry" as set forth in that program:

THREE IMPORTANT GOALS FOR FORESTRY

The situation existing today, based on experience during the last decade, points up three immediate goals for national policy. They are:

1. To meet the essentials of forest protection. This will require continued expansion, improvement and research on the control of forest fires with special emphasis on control by prevention. It is of equal importance that the control of forest insects and diseases be brought up to and maintained at a level of effectiveness comparable to the control of forest fires.

2. To improve the national timber crop in volume and quality to a degree sufficient to wipe out all deficits and build up a reserve. This can be accomplished practically and economically by utilizing more fully the produc-

tive capacity of our public and private forest lands.

3. To obtain the maximum of economic and social services from our forests by realistic application of the principle of multiple use in their management. This should include all forest uses and services but must give great weight to national requirements in conservation of water and control of erosion. The multiple use of land involves many adjustments between conflicting uses and benefits. The grazing of watersheds on forest-producing lands by domestic livestock or the propagation of game animals often involve such conflicts. They can be resolved *only by intelligent administration, which must be charged with responsibility for determining the priorities in use on any given area.*

Mr. President

With AFA heading for its centennial 20 years from now, President Johnston thinks the time has come to re-examine aims and objectives

BACK in the fabulous twenties a Florida turpentine farmer by the name of Don P. Johnston "got the forest fire complex." Turpentine, as everyone knows, is inflammable. And each year poachers and other undesirables, operating on the theory that burning up the woods had a "cleansing" effect, rode or sauntered through Mr. Johnston's holdings, tossing burning kitchen matches into tinder dry forest carpets. Mr. Johnston first fenced his 60,000 acres and then gave a permit to the most responsible rancher in the area with the stipulation that he would do burning only at the proper time. In this way, Mr. Johnston became the first turpentine farmer to practice controlled burning. Nevertheless, the fires continued and on more than one occasion, Don Johnston, smoke-smudged and weary, was found out on the fire lines battling conflagrations that could have been avoided in the first place if "people had any sense." And it was through this trying period from 1920 to 1929 that Don Johnston started telling himself grimly, "Maybe I'm going to live long enough to help do something about this thing."

He has. First as president of the North Carolina Forestry Association and more recently as president of The American Forestry Association, Don P. Johnston has continued to plug for the number one forest fire prevention plank in AFA's Program for American Forestry. One outcome of this hard work will be the first Southern Forest Fire Prevention Conference this month in New Orleans. Mr. Johnston, who now makes his home at Wake Forest, North Carolina, is more "steamed up" about this conference than any recent activity of AFA. He sees it as a solid, and perhaps a continuing vehicle, whereby the entire South may be gathered under one banner "to do what needs to be done" in eradicating the wildfire menace in southern

states. He sees it as the logical successor to the famed "Dixie Crusader" program carried out by AFA nearly 30 years ago. Both the fire and the forest insect and disease menace are seen by Mr. Johnston as two prime challenges to his association. The AFA, in his judgment, will never be able to rest easy until both of these menaces are effectively curtailed. The first will require twice the effort that is now being made. The second will require an insect and disease version of the famed Clarke-McNary law. "Failure to press for both of these programs would mean that the AFA is being derelict in its duty," Mr. Johnston has said. These aims are seconded by AFA's vice president, Dr. Wilson Compton.

Don Johnston's thinking on forestry pretty closely parallels AFA's Program for American Forestry, but not entirely. Like the late Clark Everest, a former president of AFA, he is inclined to believe that the time may come when forestry in this country will require some degree of regulation both to assure good practices and stable markets. He doesn't think that it's liable to come any time soon. When it does come, he believes, it will be from the grass roots up rather than the other way around and will develop gradually at the request of landowners themselves. This, in essence, would amount to a degree of "self regulation" which actually is being practiced already by thousands of forest landowners.

In addition to more protection for forests, Mr. Johnston sees two major jobs ahead of forestry in the next few years. On the basis of the Timber Resource Review, an intensive and cooperative effort will be required to bring some three million small woodland owners into the forestry fold. If the proposed Soil Bank proceeds along sound lines, this program in itself is seen by Mr. Johnston as a springboard whereby own-



Willingness to roll up his sleeves and go to work has marked his presidency

ers will be encouraged to plant trees and to manage those they already have. The prospect of any program such as the Soil Bank that would see barren hillsides from New England to Georgia and to the western states planted to young trees is one that makes any conservationist's mouth water and Mr. Johnston is no exception. But it will have to be planned and executed very carefully, he thinks, and the full force of the forestry profession and all other available agencies must be fully utilized.

In the past several years, The American Forestry Association has devoted considerable time, and properly, to encouraging and supporting the industrial forestry effort in its attempt to step up its management program. That this program as headed by its late leader, Col. William B. Greeley, has borne fruit is reliably set forth in the new TRR which shows that public and industry forests are best managed as of today and in some cases the industry tracts are superior to those of the public. The AFA will continue to support and encourage the industrial effort

which now shows great promise but Mr. Johnston also believes that the time has now come to turn some degree of AFA's time and attention to the public forests. Many people are still unaware of the fact that these forests are today subject to pressures undreamed of 40 or 50 years ago and meeting these increasing problems on sound multiple use principles will require both the active support and constructive help of citizen associations such as The American Forestry Association.

"In view of the growth and expansion of federal activities, I think Dick McArdle (Forest Service Chief) has done more to correlate the efforts and cement good will between federal, state and private forestry work than any Chief in history," Mr. Johnston says. "But citizens had better know that Dick McArdle and his staff are going to require a lot of support as time goes on from people with cool heads and seasoned judgment if this career agency is to effectively carry on a management program. That means that once we know we are right that we will have to resist all proposals that tend to curtail a management program on the forests that requires elasticity above all else. The greatest danger to this type of multiple use program is the vested right for all types of special interest no matter whether it be miners, ranchers, lumbermen or sportsmen. To protect the best interests of these forests and forestry, the whole forestry movement must be united and strong. But more than that, it must show some imagination in making sure that ALL users of these forests get a fair shake. This is going to take some doing, as anyone knows, but just the same it can be done and must be done. To do it we will require a strong Forest Service and we must make sure that the hands of these professionals aren't tied in any respect. The American Forestry Association is going to have its 100th birthday in 20 years or thereabouts and when that time comes the founders of this association would have wanted to see those forests flourishing and doing their job in terms of sound forestry programs, watershed protection and all the other allied uses. This will require superior management."

Hand in hand with its program for public forests must go the study on public landownership that the association is pledged to make, Mr. Johnston thinks. "We aren't going

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THE MAN BEHIND THE SCENES

By RICHARD E. McARDLE

Chief, Forest Service

QUITE a number of persons who began their careers as members of the U. S. Forest Service have later gone into other fields of work. Many of them have achieved eminence in the new fields. We in the Forest Service have an idea that their early training in such jobs as junior forester or forest ranger—jobs that called for plenty of initiative, responsibility, and resourcefulness—helped them to move ahead in whatever line of endeavor they chose.

The Forest Service is proud of its "alumni" who have gone on to success in the business or industrial world. And it is especially proud that these former Forest Service employees often continue to work with undiminished vigor for forest conservation.

A Forest Service alumnus whose record is outstanding on both counts is Don P. Johnston, President of The American Forestry Association.

Don Johnston was a member of the Forest Service for 12 years, back in the days when the work of the Forest Service was in its pioneer stages and the development and administration of the national forests was just getting under way. He was Supervisor, in turn, of the Gila, Santa Fe, and Coronado National Forests in New Mexico and Arizona. He worked at the Forest Products Laboratory in Madison, Wisconsin, and served as chief of the division of operations in the regional offices at Albuquerque, N. Mexico, and at San Francisco, California. He was a member of the interdepartmental committee on boundaries of National Forests, National Monuments, National Parks, and Indian Reservations.

When he left the Forest Service some 35 years ago, Don Johnston went on to a successful career in business and industry. His varied activities included a spell as secretary-manager of a land company, manager of a naval stores company in the Southeast, and executive vice-president of a bank in Florida. Eventually he became a prominent mem-

ber of the textile industry, a director of the Cotton Textile Institute, and president of the Royal Cotton Mills of Wake Forest, North Carolina.

During all this time, Don Johnston's interest in forestry continued unabated. This interest took active form; he participated in many forestry activities. He was president of the North Carolina Forestry Association from 1948 to 1951, and still serves on its Board of Directors. In 1947 he became a Director of The American Forestry Association. He was elected President of the association in 1952, has been re-elected each year since, and is now serving his fifth term.

Under his leadership, The American Forestry Association has set new milestones in its long history of effort for the advancement of forestry. There was the Higgins Lake Conference in June, 1952, when representatives of public and private forestry and related interests met at the invitation of AFA to draw up a Program for American Forestry. This was followed by the Fourth American Forestry Congress, which was held in Washington in October, 1953. At this meeting, the association presented the program for public discussion. Later the new program was adopted by AFA membership. While there have been some differences of opinion over specific points in the program, I believe we can all be in agreement on its broad forward-looking objectives.

The American Forestry Association took the lead in arranging a conference between the mining industry and public land managers which led to new legislation which will greatly facilitate orderly developments of mineral resources along with other resources in the national forests, and prevent large-scale misuse of these laws for purposes other than mining.

Most recently, Don Johnston has been a prime mover in the Southern Forest Fire Prevention Conference which AFA is co-sponsoring this

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Leading discussion at a board meeting is Stanley G. Fontanna, Dean of School of Natural Resources, Univ. of Michigan

AFA's Board of Directors, like the governing body of Harvard University, is composed of people whose backgrounds and occupations are quite diversified, and as the Harvard group subjugates all personal considerations to the best interests of Harvard and sound education, the guiding principle of AFA's board is "What's good for American forestry is good for The American Forestry Association."

The Board of Directors forms the policy-making core of the association. Long-range planning for the wise use of our renewable natural resources as well as determining the association's attitude and action on current issues and events, including

legislation, affecting the various phases of conservation that are the concern of AFA, are also the responsibilities of the board.

Other duties of the board include establishing the general administrative policies of AFA's headquarters and setting personnel criteria. At its last meeting the board really boosted the staff's morale by announcing an across-the-board increase in salary, and by appointing a committee, under the chairmanship of Mr. James Storrow, to study a retirement plan for the employees.

Besides the standing executive and finance committees of the board, from time to time committees to study and evaluate various conservation projects are named by the board. Such committees operating at the present time include the Public Landownership Committee, of which Mr. DeWitt Nelson is chairman, the Forest Insurance and Taxation Committee, headed by Mr. Harold Shepard, and the board supervised Awards Committee.

Fifteen members comprise this Board of Directors, with Karl T. Frederick a corporation lawyer from New York the elder statesman of the group in terms of length of service. Mrs. Katharine Jackson Lee, sister of the late General Billy Mitchell, is the distaff member of the board. Foresters in both public and private

practice on the board include Mr. Charles A. Connaughton of California, Mr. George L. Drake of Washington, and George O. White of Missouri. Another forester, Mr. DeWitt Nelson, works in a broader conservation field being the director of all California's natural resources.

Dean Stanley G. Fontanna, Michigan School of Natural Resources, and Dr. Henry Schmitz, president, University of Washington are the board members from the educational field, while business and industry are represented by Mr. George W. Merck, president of Merck & Co., Mr. X. L. Pellicer, vice-president of the St. Augustine National Bank, Edward P. Stamm, vice-president, Crown Zellerbach Corporation, and business executive James J. Storrow of Boston. Judge Robert W. Sawyer of Bend, Oregon and Mr. Karl T. Frederick are board members from the legal profession, Mr. Harold B. Shepard, Massachusetts, is an economist, and Mr. Phillip W. Smith, a Pennsylvania farmer.

Although the professions and occupations represented on the Board of Directors are widely diversified, the members, because of their common and active interest in the conservation of our renewable natural resources, form a potent and intelligent force in the promotion of "What's good for American forestry."

What's Good For American Forestry

United in purpose, but representing a variety of occupations and interests, AFA's Board of Directors has won wide acclaim for its forward-looking, practical forestry policies



Thorough investigation of all phases of each issue before taking a stand is policy of Board of Directors. Here, AFA's president, Don P. Johnston presents his views

The First Eighty Years



Sights set on constructive leadership, AFA's course was charted. To date, this is the record

By SAMUEL T. DANA

EIGHTY years ago there was not a single forester in the United States and not a single acre of land was under forest management. Today there are more than 20,000 men with professional training in forestry, which is effectively practiced on millions of acres by both public and private agencies. The part which The American Forestry Association has played in bringing about this revolution is too little appreciated either by the general public or even by foresters. Perhaps its recent birthday affords a good opportunity to look at the record.

Organization and Early Activities

The birth of the Association on September 10, 1875, was announced thus by the Chicago Tribune: "A number of gentlemen interested in forest-culture assembled in the ladies' ordinary at the Grand Pacific yesterday morning at 8 o'clock, for the purpose of organizing a Forestry Association." Leadership in bringing the group together was taken by John A. Warder, an Ohio physician, pomologist, landscape gardener, and amateur forester, who became its first president. In his call for the meeting he stated as one of the objectives of the proposed association, "The fostering of all interests of forest planting and conservation on this continent." Dr. Warder was thus talking about "conservation" some thirty years before the word was popularized by Gifford Pinchot and Theodore Roosevelt.

At the second meeting of the Association in 1876 arrangements were made to absorb the American Forestry Council, a committee of the Farmers' Club of the American Institute in New York City which had been appointed in October, 1873, with ambitious plans for the promotion of forestry through the organization of an independent society

Since 1936, Washington headquarters of The American Forestry Association



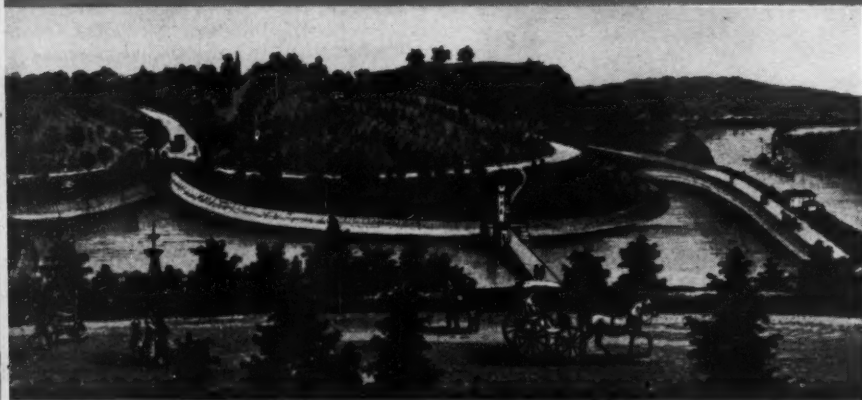
which never materialized. During the next few years the activities of The American Forestry Association were chiefly those of its president, who continued to be Dr. Warder. At its last formal meeting on June 29, 1882, a committee was appointed to pave the way for amalgamation of the association with the American Forestry Congress which had been organized a couple of months earlier.

The first American Forestry Congress, held at Cincinnati from April 25 to 29, 1882, gave forests and forestry the greatest publicity they had yet received in the United States. The most spectacular feature of the Congress was the celebration of Arbor Day by "the first public planting of memorial groves in America, if not in the world, in honor of statesmen, authors, soldiers, and distinguished citizens." Those present decided that the Congress should



In Chicago's Grand Pacific Hotel, 1875, APA was organized.

Eden Park, scene of first Forest Congress, Arbor Day, 1882



perpetuate itself as a permanent organization and arranged to hold the next meeting at Montreal in August, 1882, when the consolidation of the two organizations was effected with a total membership of 266 persons.

The eighth annual meeting at Atlanta in December, 1888, was featured by the absorption of the Southern Forestry Congress. The next year (1889) the constitution was amended to read: "This Association shall be known as The American Forestry Association, and its annual meetings shall be called Forest Congress." Some thirty-five years later, in 1923, the Association absorbed the National Conservation Association, which had been formed in 1909. The present Association (commonly referred to hereafter as A.F.A.) is thus the result of the amalgamation of five once independent organizations — the original

American Forestry Association, the American Forestry Council, the American Forestry Congress, the first Southern Forestry Congress, and the National Conservation Association.

Following the enthusiasm generated by the Cincinnati and Montreal meetings in 1882, membership in the American Forestry Congress declined. The early lack of members and money, however, did not dampen the zeal or weaken the persistence of the relatively few devoted men who formed the backbone of the organization and who from the beginning made it a force to be reckoned with. Their interests included every aspect of forestry—technical, economic, and political—with emphasis on education and legislation as the primary means of establishing constructive forest policies and sound forest practices. The

Executive Committee summed up its attitude thus: "This Association has two immediate objects in view by means of which ultimately to secure forest preservation—education, leading the public mind to see the necessities of the situation; and legislation, establishing proper methods of dealing with the situation. It would be almost as fatal to abandon the fight on the second line as on the first."

At the annual meeting in 1885, President Warren Higley sounded the keynote of the organization's activities for many years when he urged that government forest lands be withdrawn from sale and entry, and that efficient measures be taken to protect them from fire and trespass. The next year the Congress resolved: "That the public lands, at the sources of streams, necessary for the preservation of water supplies, should be granted by the general government to the several states, to be held and kept by such states in perpetuity, for the public use, with a view to maintain and preserve a full supply of water in all rivers and streams."

The apostasy of proposing to transfer the public timberlands to the states was never repeated. The very next year the Association went on record as favoring strongly the permanent reservation by the federal government of public lands primarily valuable for timber production or watershed protection.

Campaign for Forest Reserves

At the annual meeting in 1887, Fernow presented the draft of a bill providing for the withdrawal, classification, and retention as forest reserves of such forests and timberlands as "should be permanently retained in reservation for climatic or other economic or public reasons." The bill also provided for the appointment in the Department of the Interior of a commissioner of forests who should "have the care, management and control of all the forest lands owned or controlled by the United States." The bill was endorsed by the Congress, and a special Committee on Legislation was appointed to promote its passage. From that day to this, there has been no deviation from the orthodox doctrine that federal forest lands should be retained and administered by the federal government.

Progress in obtaining action by Congress was characteristically slow. In the House, the Committee on Public Lands proposed to embody certain portions of the bill in highly emasculated form in a much more comprehensive bill repealing the timber-culture and pre-emption acts and otherwise amending the general land laws. In the Senate it did not even get the consideration of the committee to which it was referred.

Setbacks such as this seem to have acted as a spur to greater efforts, which finally resulted in passage of the Act of March 3, 1891, authorizing the President to establish forest reserves. The victory was far from complete, however, because the act made no provision for protection and administration of the reserves. At the annual meeting in December, 1891, it was recognized that "the all-important problem is that of the management of these reservations."

During the next few years A.F.A., in spite of repeated discouragements, was indefatigable in its efforts to obtain the desired legislation. In 1894, a resolution reminiscent of A.F.A.'s current proposal for a study of forest land ownership urged the establishment of a Forestry Commission "to make a thorough investigation of the public forest lands, and to make recommendations concerning their disposition and treatment." This recommendation resulted in the famous Forest Commission appointed by the National Academy of Sciences in 1896. Fernow stated that the Executive Committee, "in securing the appointment of this body did not expect that its recom-

mendations would be essentially or strikingly different from those made and advocated by your Association, but hopes that the weight of the opinion of the eminent gentlemen composing the forestry committee and of the body from which it was selected will do much to arouse more generally public interest and to secure the passage of desired legislation."

That legislation was finally embodied in the act of June 4, 1897, which still provides the basic principles for the establishment and administration of the national forests. Perhaps this culmination of the efforts of the Association over a ten-year period, along with other less spectacular accomplishments, justified the self-satisfaction expressed at the annual meeting in Washington in December, 1897, by Col. William F. Fox of New York, who declared, "with great emphasis, that every development in the forestry movement in this country could finally be traced to the activity of the Association or the few who had managed its affairs." Edward A. Bowers, former Assistant Commissioner of the General Land Office, expressed the same idea at the annual meeting in 1899, when he stated that the Association had been the center to which people turned when they wished to accomplish something in forestry, and that the present reservation system was the result of its work.

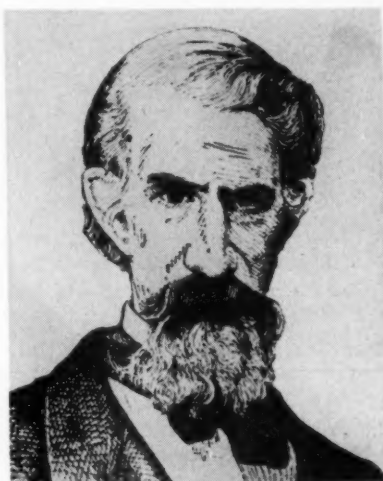
Administrative Jurisdiction

The next step was to secure the consolidation in a single unit of the three agencies concerned with the administration of the reserves—the General Land Office and the Geological Survey in the Department of the Interior and the Division of Forestry in the Department of Agriculture. In 1898, the Association urged on Congress "the wisdom and economy of the unification of these varied agencies in a single bureau adequate in resources and equipment to the great work involved." It is of interest to note that Gifford Pinchot was currently serving as chairman both of the Committee on Resolutions and the Executive Committee, which was replaced at that meeting by a Board of Directors.

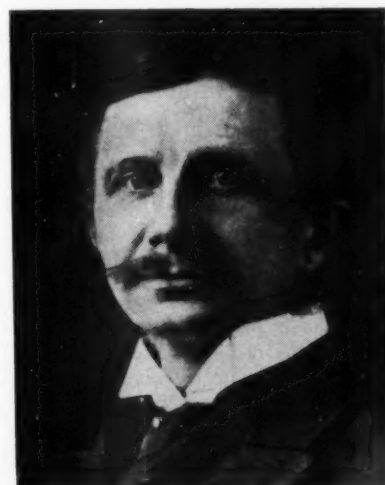
Three years later, after considerable discussion, the Association became more specific as to the location of the consolidated unit, which it recommended should be "in and under the Bureau of Forestry, Department of Agriculture." The American Forest Congress which

was held in Washington in January, 1905, is generally credited with having supplied the necessary pressure to bring about the passage of the act of February 1, transferring administration of the forest reserves from the Department of the Interior to the Department of Agriculture.

There has been no subsequent alteration of this position. In 1922, when Secretary of the Interior Albert B. Fall made no secret of his intention to annex the Forest Service, the Association resolved that "it earnestly protests against the proposal to transfer the Forest Service or any portion of it from its present jurisdiction in the Department of Agriculture." In 1931, when the question of jurisdiction had again been raised by certain implications in the report of the Committee on Conservation and Administration of



An Ohio physician, John A. Warder, was the founder and first president of AFA



Bernhard E. Fernow, an early supporter of AFA, campaigned for forest reserves



AFA's Southern Forestry Educational Project was initiated in 1928, to awaken public sentiment to forest fire menace



Exhibits and movies of local conditions were most effective tools



For three years the "Dixie Crusaders" spread the word in 4 southern states

the Public Domain, the Association declared itself in favor of giving the Department of Agriculture responsibility for all Federal activities dealing with renewable natural resources, including forests, forage, wildlife, soil, and water.

When Secretary of the Interior Harold L. Ickes, with the apparent approval of President Roosevelt, developed ambitions to include the Forest Service in a proposed Department of Conservation, the Association participated actively in 1937 and subsequent years in the campaign to block the removal of the Service from the Department of Agriculture. In 1950 it opposed a somewhat similar proposal by a minority of the First Hoover Commission, by endorsing the recommendation by the majority that the Forest Service remain in the Department of Agriculture and that certain other land management functions now handled by the Department of the Interior be transferred to Agriculture.

Acquisition Program

Even before the transfer of jurisdiction over the forest reserves, A.F.A. joined the forces seeking legislation to permit federal purchase of forest lands. In 1899 it expressed "its gratification at the prospect of the establishment of national parks and forest reservations in Minnesota and along the crest of the southern Alleghenies." Support of a liberal acquisition policy was maintained without a break at subsequent meetings of the Association. The proposal for purchases in the Southern Appalachians was extended to include New England, and emphasis was shifted from parks to forests.

In 1905, the American Forest Congress adopted a strong and influential position on the subject. From then on, the effort to obtain enabling legislation became one of the chief activities of the Association. That passage of the Weeks Law of March 1, 1911, was due in large measure to the activities of The

American Forestry Association cannot be doubted.

Renewed interest in the subject of acquisition was manifested at the annual meeting in 1920, when A.F.A. declared itself "in favor of a material increase in federal, state, and municipal forests." In 1923, a bill sponsored by the Association authorized the expenditure of \$100,000,000 for the acquisition of national forests, to be appropriated from year to year in accordance with the condition of the Treasury. This proposal was followed a year later by bills authorizing the appropriation of \$40,000,000 over a five-year period. The final result was the McNary-Woodruff Act of April 30, 1928, authorizing the appropriation of \$8,000,000 over a three-year period, of which \$5,000,000 was actually appropriated.

Not satisfied with this outcome, the Association in 1930 approved a program of the National Forest Reservation Commission for the expenditure of \$50,000,000 over a ten-year period for acquisition purposes. Sums aggregating somewhat less than this amount were later made available by President Roosevelt out of emergency appropriations under his control. In recent years, with the marked improvement that has taken place in the management of state and private forests, the Association has laid more emphasis on maintaining the integrity of the national forests than on their expansion.

Other Federal Lands

Failure by Congress to provide for the intelligent management of the heavily timbered lands included in the revested grant to the Oregon and California Railroad Company led A.F.A. to commission its Executive Secretary, Ovid Butler, to make an on-the-ground study of the situation. His thoroughly documented article, "The Oregon Checkmate," in the April, 1936, issue of AMERICAN FORESTS provided the ammunition for the campaign which resulted in the Act of August 28, 1937, placing the O. and C. lands on a sustained-yield basis.

No position has been taken by the Association on the complicated and highly controversial question as to what Department should exercise jurisdiction over the half million acres of "controversial land" in the indemnity strip of the O. and C. grant. It did, however, endorse the recommendation of the first Hoover Commission that administration of both controverted and other O. and C. lands should be assigned to a

Forest and Range Service in the Department of Agriculture.

Proper management of the public range lands, as well as of the public forest lands, has long been an object of major concern to the Association. As early as 1898 it recommended "the adoption of a system for the leasing of the public grazing lands, with use of the revenue for forest preservation and irrigation development in the states concerned."

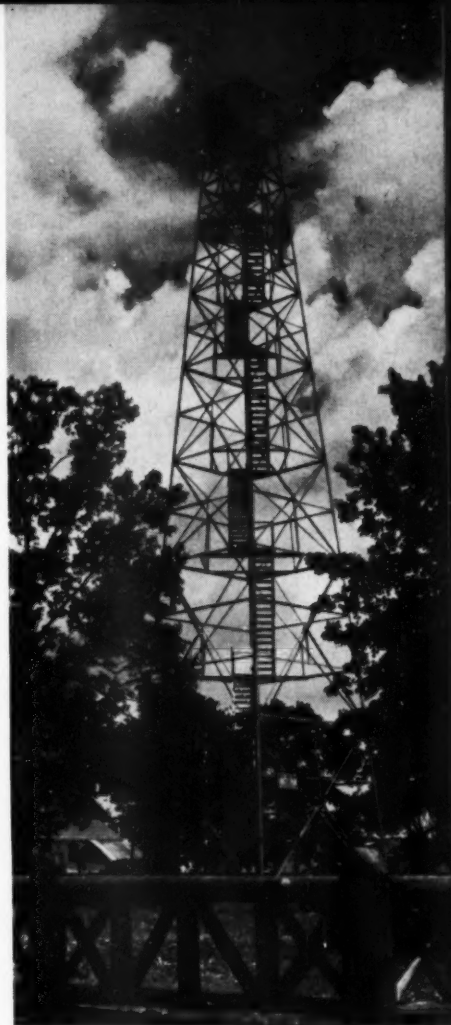
With respect to range lands included in national forests, A.F.A. in 1926 expressed itself "as emphatically opposed to the grazing legislation proposed by western stockmen or to any other legislation seeking to take from the Secretary of Agriculture authority to regulate grazing on the national forests." A few months later the Directors spelled out this position in somewhat more detail by voting that any legislation should retain in the Secretary of Agriculture "the grant of broad administrative authority in contrast to specific grants which attempt to enumerate the details of administrative action." The next year the Association again opposed "any legislation seeking to establish by statute the legality of grazing on the national forests."

In 1932, the Directors recommended that the President be authorized to create grazing districts; and later

in the same year the Association urged that Congress place all unreserved public lands, consisting very largely of range lands, under the Department of Agriculture, which should handle all activities dealing with agriculture, grazing, forestry, and wildlife. This position it has maintained consistently since that time.

National parks, like national forests, have always had the strong support of the Association, with due recognition of the basic differences between the two kinds of reservations. It has been particularly insistent on the maintenance of high standards of quality for national parks, and in 1928 it vigorously opposed the creation of the proposed Ouachita National Park in Arkansas as not meeting such standards.

It has opposed with equal consistency and vigor the use of national parks for other than scientific and recreational purposes. Examples are its opposition in 1909 to the construction of a reservoir in Hetch-Hetchy Valley in the Yosemite National Park, and in 1938 to the diversion of water by a tunnel from the Yellowstone National Park to the Snake River. In 1943, when strong pressure was being exerted on Congress to permit logging in parts of the Olympic National Park, the Directors stated that "the Asso-



Protection from fire, insects and diseases are AFA projects



Program for American Forestry was presented to 1954 Forest Congress

Conservation of our water resources is a prime concern of the association



ciation has always stood, and still stands, firmly against any economic use of the resources of the national parks. . . . Only when all other sources of supply have been explored and found inadequate to meet the war emergency should any of the forests in the present Olympic Park be sacrificed. If such a sacrifice is necessary to win the war, the areas on which the timber stands should be eliminated from the park and returned to the national forest. We believe that by this method a substantial area of the primeval forest can be preserved intact, and the high standards of the national park system be maintained."

Mining Laws and the Public Lands

Abuses under the mineral laws were recognized as early as 1903, when A.F.A. resolved, "That the existing laws under which mineral entries are made within forest reserves are a menace to the reserves,

and that said laws should be modified as to prevent mineral entries for other purposes than the development of mineral resources, while affording to the *bona fide* prospector full opportunity to perfect a mining claim."

A serious campaign to remedy the situation was started in 1952 with a series of articles on the subject in **AMERICAN FORESTS**. The 1954 Program for American Forestry recommended that "Congress revise the federal mining laws to prevent their abuse by claimants or patentees who use their claims to tie up more valuable timber or other surface resources than they legitimately need to develop the minerals." Later in the year the Directors instructed the staff to attempt to obtain legislation to this effect.

Previous efforts in several quarters to achieve the same objective had been stymied so successfully by the mining industry as to make the attempt look hopeless. It was therefore a real achievement when the Executive Director succeeded in getting complete agreement between representatives of the mining industry and of government agencies on the draft of a remedial bill that was promptly approved by Congress on July 23, 1955. The act removed common varieties of pumice, pumi-

cite, and cinders on public lands from the operation of the mining laws and authorized their disposal, along with sand, clay, stone, gravel, and vegetative materials, by the Secretary of the Department having jurisdiction over the lands in question. It also authorized the government to dispose of timber and other surface resources on mining claims hereafter located; and it provided procedures by which existing rights to the use of timber and other surface resources can be canceled or waived on inactive, unpatented mining claims.

Land Ownership Studies

A problem in which A.F.A. has taken a long and continuing interest is that of forest landownership. While it has consistently supported the ownership of considerable areas by the federal and state governments, it has always regarded private ownership of the bulk of our forest area as desirable. It has also recognized that changing conditions may call for changing patterns of ownership, and for the last twenty-five years has been urging thorough and impartial study of the situation.

The 1947 Program for American Forestry recommended specifically "a state-by-state study of the desirable relationships between federal,

state and private ownership, with a view to mutual understanding and agreement among all classes of forest owners as to further federal and state acquisitions."

In 1953 the Directors, after asserting that "the essential integrity of [the national forests] must be preserved as part of our basic national policy," expressed the belief "that the national forests would be strengthened by a realistic and impartial review of their boundaries, state by state, in the light of the progress in forest management and other pertinent considerations including watershed protection, wildlife and recreational use.

"This review should provide factual information upon which to project the pattern of desirable national, state and private forest land ownership in the foreseeable future. When approved by the Secretary of Agriculture, the state review should guide the future course of the Department in respect to national forest additions or eliminations."

A year later (1954), the Association's revised Program for American Forestry recommended that:

"1. Early action be taken by the Congress to establish a joint Congressional Committee . . . whose objectives would be:

"a) To consider a desirable pat-

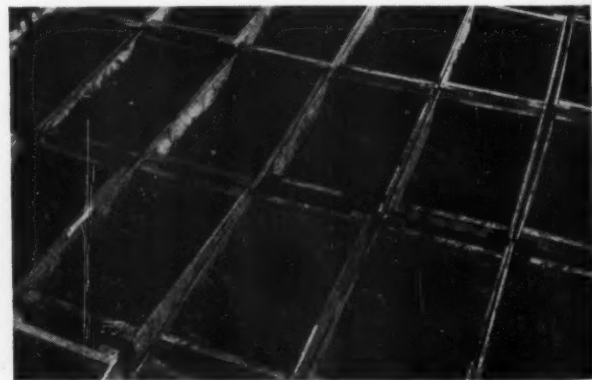
AFA encourages cooperation between state and private forestry



More extensive forestry training has been urged by association



Production of seedlings is essential to adequate timber supply



Land management is an important feature of AFA's program



tern for ownership of federal, state and private forest, range and other conservation lands.

"b) To formulate policies to guide action of public agencies toward achieving this pattern.

"c) To recommend to the Congress legislation needed to enable Federal agencies to implement these policies.

"2. Early action by the governor of each state to appoint a representative committee to report on the conditions in his state as they may relate to items a), b), and c) above, and render a report which will be made available to the joint Congressional Committee."

State and Private Forestry

From the beginning A.F.A. has recognized that forestry in the United States must be a cooperative enterprise in which the federal government, the states, and private owners all play a prominent part. Early and continuous stress was laid on the need for strong state forestry organizations, and Col. William F. Fox credited the Association with having been responsible for the establishment of a Forest Department in New York in 1885. State leadership in fire control and tax reform was urged strongly and continuously as the essential first step to make possible the practice of forestry on private lands.

The desirability of state ownership of considerable areas was also recognized. As one means to this end, it recommended in 1895 that tax-delinquent timberlands be acquired by the state and held to form the nucleus of state forest reservations. In 1902, the Association appointed a committee "to memorialize the various state governments to inaugurate a forest reservation policy, or to extend their existing forest reservations, and to secure legislation which will complete the establishment of a proper policy throughout the states."

State leadership in other fields, such as public education, the production and distribution of nursery stock, and cooperation with private owners in the management of forest lands and in the harvesting and marketing of forest products, has always been urged. In line with this policy, A.F.A. has worked closely with the individual states in the enactment of constructive legislation and the development of sound programs of action. It has also strongly supported cooperative federal legislation such as the Weeks Act of 1911,



Multiple use of our forests, to ensure maximum benefits from our woodlands, is endorsed by AFA. Grazing of livestock is included in plan



Recreation on the forests is another function of multiple use concept. AFA has proposed increased appropriations to improve these facilities

the Clarke-McNary Act of 1924, the Cooperative Farm Forestry Act of 1937, the Forest Pest Control Act of 1947, and the Cooperative Forest Management Act of 1950.

A.F.A. was one of the first organizations to take a position on the highly controversial subject of public regulation of cutting on privately owned forest lands. A resolution adopted at the annual meeting in 1911, after urging the states to encourage private forestry by educational efforts, demonstration forests, improved fire protection, and tax reform, continued as follows: "They should enforce a reasonable degree of regulation on lands where the direct influence of the forests on streams and erosion is clearly proven, but they should put the interpretation of such regulations in the hands of a qualified forester, with power, and with sufficient assistance, to insure full enforcement."

There was no real attempt on the

part either of the Association or others to apply this principle in practice until 1919, when the Forest Service and the Society of American Foresters initiated campaigns that made public regulation one of the chief issues of the day. A.F.A. in 1922 defined its position on the subject by stating that as part of a national policy of forestry, we should aim "toward the establishment of such feasible requirements by the public in regard to private lands as may be essential to secure effective results and as will justify the public expenditures in cooperation with the states and private owners in fire protection, reforestation, research and experimentation and through other measures of assistance."

In 1939 the Directors favored "the use of the police power to the extent necessary to safeguard the interest of the general public." More specifically, they expressed the view

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Southern Forest Fire Prevention Conference

Roosevelt Hotel, New Orleans, Louisiana, April 13 and 14, 1956

PROGRAM

FRIDAY, APRIL 13, 1956

8:00-9:30 a.m.—Registration—Hotel Roosevelt Lobby

MORNING SESSION—9:30 a.m.—Grand Ballroom

Chairman: WARREN T. WHITE—Asst. V. P., Seaboard Air Line Railroad, Norfolk, Va.

Invocation: Dr. MYRON C. MADDEN, Pastor, St. Charles Ave. Baptist Church, New Orleans

Welcome to Louisiana: The Honorable ROBERT F. KENNON, Governor of Louisiana, Baton Rouge

Welcome to New Orleans: The Honorable de LESSEPS S. MORRISON, Mayor, City of New Orleans

Response: DON P. JOHNSTON, President, The American Forestry Association, Wake Forest, N. C.

Address: *The South's Forests—Fountainhead of her Prosperity and Happiness*—JOHN A. SIBLEY, Chairman of the Board, Trust Company of Georgia, Atlanta

Address: *Fire's Grim Toll of Southern Forests—What it Means to You and Me*—FRANK R. AHLGREN, Editor, *Memphis Commercial Appeal*, Memphis, Tenn.

Comments: Mrs. CHESTER E. MARTIN, President, Southeastern Council, General Federation of Women's Clubs, Atlanta, Georgia

Comments: The Honorable Mrs. IRIS FAIRCLOTH BLITCH, U. S. Representative, 8th Congressional District of Georgia, Homerville

LUNCHEON SESSION—12:30 p.m.—International Room

Chairman: WARREN T. WHITE

Address: *What the South Is Doing Today to Drive Wildlife Out of the Woods*—RICHARD E. McARDLE, Chief, Forest Service, U. S. Department of Agriculture, Washington, D. C.

AFTERNOON SESSION—2:30 p.m.—Grand Ballroom

Chairman: WARREN T. WHITE

PANEL DISCUSSION

What We Need to Do to End the South's Forest Fire Menace:

Moderator: The Honorable ORVAL E. FAUBUS, Governor of Arkansas, Little Rock

(1) *Through Mass Education*—CLINT DAVIS, Chief, Division of Information and Education, U. S. Department of Agriculture, Washington, D. C.

(2) *Through Laws and the Courts*—BOYCE HOLLOMAN, District Attorney, Wiggins, Mississippi

(3) *Through Law Enforcement (Investigation)*—JAMES E. MIXON, State Forester of Louisiana, Baton Rouge

Summary Address: The Honorable E. HARRIS DREW, Chief Justice, Supreme Court of Florida, Tallahassee

SOCIAL HOUR—6:30-7:30 p.m.—Grand Ballroom

BANQUET—7:30 p.m.—International Room

Toastmaster—WILLIAM D. WELSH, retired Director of Public Relations, Crown Zellerbach Corporation, Port Angeles, Washington

Address—The Honorable HOWARD PYLE, Deputy Assistant to the President, The White House, Washington, D. C.

SATURDAY MORNING, APRIL 14, 1956

9:30 A.M. TO 12:00 NOON

WORKSHOP ON CITIZENS' FIRE PREVENTION PROGRAMS—University Room

Chairman: HARRY S. MOSEBROOK, Natural Resources Department, Chamber of Commerce of the United States, Washington, D. C.

The Problem: The Forest Fire Menace in the South

Panel Leader: WILLIAM J. McGLOTHLIN, Assoc. Dir. for Regional Programs, Southern Regional Education Board, Atlanta, Georgia

The Solutions: What Can Be Done About It?

Workshop Discussion Groups:

Our Public Opinion Tools: JAMES M. LAMBIE, JR., Special Assistant, The White House, Washington, D. C.

Organizing Our Programs Back Home: JAMES W. CRAIG, Chairman of the Board, Forestry Suppliers, Inc., Jackson, Mississippi (Former State Forester, Mississippi)

Our Fire Law Enforcement Responsibilities: JOHN W. SQUIRES, Manager Forestry Department, Mississippi Products, Inc., Jackson, Mississippi

CONFERENCE CLOSING ADDRESS—University Room: HENRY MALSBERGER, S.P.C.A.

THE *Program* FOR AMERICAN FORESTRY

FORESTRY progress has been made since the adoption of AFA's Program for Forestry in 1954. The Timber Resource Review of the Forest Service shows this—especially in the fields of public and industrial forestry. But this Review also points up appalling shortcomings in our forestry picture—shortcomings that become even more glaringly apparent when viewed in terms of our increasing population. The question as AFA rounds the 80 year milestone and heads for the 100 year mark is this: Are we going to be content to measure our progress in terms of limited objectives and immediate forestry needs? Or are we going to hitch our wagon to a star in going after the big and imposing objectives which, if achieved, will guarantee future generations an abundance of quality fiber and all the other things trees provide in assuring our national security?

What has been accomplished? On the plus side, The Southern Forest Fire Prevention Conference this month in New Orleans (See opposite page) represents a real stride in seeking to achieve the "essentials of forest protection." But it shouldn't stop at New Orleans. The drive to stamp out wildfires in the South must be a continuing thing and it will require coordination. If this is done, this conference will represent a real step in the right direction. Insects and disease control? Despite good work in certain areas, we still aren't on top of this one. Many members believe that nothing short of another Clarke-McNary law to control diseases and pests will do the job that has to be done. Meanwhile both of these menaces continue to extract their fearsome annual toll from our nation's forests.

Are we doing as much as we should "to improve the national timber crop in volume and quality to a degree sufficient to wipe out all deficits and build up a reserve?" The Timber Resource Review would indicate that we definitely are not.

Aided by stepped-up appropriations, public lands management has improved but is still far short of maximum efficiency. The TRR credits industrial forestry with solid gains that give promise of even better things to come—if we can supply the foresters to do the job. It is in these two fields that the record is the best. But what about the 60 percent of commercial forest land in small ownerships? The record here is not good. We still aren't reaching them. Tree Farms have helped. The Annual Report of the American Forest Products Industries shows that 33,692,964 acres are now enrolled under the management banner. It added 4.1 million acres to that total last year. But there are over three million such ownerships in the nation. Unless we can come up with a real solution—some cooperative plan of action on a big scale—prospect is that we will continue to peck around the edges on this problem for many years to come. AFA's Annual Meeting in Maryland this year might help—if it really comes to grips with the problem. And there are indications that it may. Demands for "action now" are coursing up through the membership with greater intensity than has been the case in previous years. The reaction has been "Yes, the present favorable growth picture is a fine thing. It represents progress. But let's make it really stick. Let's jack up the management pattern on all forest properties. Let's try and do something about improving the quality of our wood pile—and that means more and more intensive management by more and more owners." All segments of forestry appear to agree on this. Consensus from all quarters is "We must not relax."

Are we obtaining "the maximum of economic and social services from our forests by realistic application of the principle of multiple use in their

management?" Here is another big, tough problem rapidly getting tougher. Forestry is really trying on this one—both public and private. The first amendments to the antiquated mining laws of 1872 as regards mining claims abuses on public lands last year represented a constructive first step. Both forestry and the public generally today are more conscious of the need for water management, recreational and wilderness outlets and careful attention to wildlife habitat than ever before. The public will be served on these problems, make no mistake about that. But it will require understanding, research and real belief in the concept of "the greatest good for the greatest number. . . ." Here, we are also shackled by many things we do not yet know. In water, for example, research is far behind the demand of the people for constructive action. Great care, honesty and patience will be required in the solving of these many problems as regards multiple use of our forests.

Both the small Watersheds Act and the proposed Soil Bank Program are regarded by many AFA members as constructive approaches to difficult problems—tools that may help immeasurably in giving both forest and water management impetus. Scant patience was shown in earlier proposals to lump both rigid price supports and Soil Bank plans together. Together, these proposals would have tended to defeat the key purpose of the program which is the reduction of huge crop surpluses. With the rigid supports out the window, the way is now open, many members think, whereby crop surpluses may be cut down while doing sound conservation a tremendous "good turn" at the same time. But the Soil Bank program must be carefully planned and executed, they think. And pro-

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AFA's program contains broad and imposing objectives, but are they being activated sufficiently to ensure resources abundance?



AFA's Lowell Besley (left) with members of Awards Committee. (L. to r.) Mr. Arthur R. Spillers, Mr. Louis H. Wilson, chairman, Mr. R. E. Bass, and Mr. Paul M. Dunn. Not shown, Hon. W. M. Abbitt, Mr. Bryce C. Browning

Conservation Awards COMMITTEE

"NOMINATIONS for the highest award in forest conservation are now being received by The American Forestry Association's Conservation Awards Committee," committee chairman, Louis H. Wilson, announced last month.

Mr. Wilson explained that the committee is encouraging all members to submit names of individuals, not necessarily AFA members, who have contributed significantly to the conservation and use of our renewable natural resources. In order to

qualify for the 1956 awards, nominations must be received by the committee not later than June 15, 1956.

Under the awards program, which is financed by the Sears Roebuck Foundation, these conservation awards are presented annually by the AFA in five fields of activities, but the Awards Committee determines the category in which each nominee will compete. Recipients of the 1955 Conservation Awards were: Earl W. McMunn, public information; John Philip Weyerhaeuser, Jr., business and industry; Perry Henry Merrill,

public servants; Gilmour Byers MacDonald, education; and, William P. Wharton, general service.

The Awards Committee, composed of a cross-section of conservation endeavor, reviews and nominates the candidates in the five fields for consideration and approval by the Board of Directors of AFA. The final selection is based entirely upon the information submitted with each nomination.

Mr. Louis H. Wilson of the National Plant Food Council is chairman of the Awards Committee, and Mr. R. E. Bass, Virginia's State Supervisor of Vocational Agriculture, serves as secretary for the committee. Other members of the committee are: Bryce C. Browning, Muskingum Watershed District, Paul M. Dunn, St. Regis Paper Company, Arthur

To encourage wiser use of our renewable natural resources, AFA annually presents Distinguished Service Awards to individuals who have contributed significantly to forest conservation

R. Spillers, U. S. Forest Service, and the Honorable W. M. Abbitt, U. S. Representative, Virginia. Both Mr. Dunn and Mr. Bass are newly-appointed members of the committee, filling the vacancies left by Robert N. Hoskins and Dr. M. D. Mobley whose terms expired December 31, 1955.

Mr. R. E. Bass, who will represent the field of education on the committee, has been associated with agricultural education since 1929. A graduate of Virginia Polytechnic Institute, Mr. Bass taught vocational agriculture for nine years, and later served as supervisor of shop and construction projects, Assistant State Administrator for the National Youth Administration, and Assistant Supervisor of Vocational Agriculture. In 1951, he was appointed Virginia's State Supervisor of Vocational Agriculture. Mr. Bass is considered an outstanding administrator in agricultural education.

The other new committee member, representing business and industry, is Paul M. Dunn, Technical Director of Forestry for the St. Regis Paper Company. Mr. Dunn's extensive background in forestry includes governmental, educational and professional association activities. From 1942 to 1955 Mr. Dunn was Dean of Forestry at Oregon State College and Director of the Oregon State Forest Experiment Station. He also served as Director of the Oregon Forest Products Laboratory from 1942 to 1953. On a leave of absence from Oregon State from 1952-53, Mr. Dunn was assigned to the FAO, a UN agency, to assist the Govern-

ment of Chile in establishing a forestry curriculum at the University of Chile.

Robert N. Hoskins and Dr. M. D. Mobley, the retiring members of the awards Committee, received special certificates of recognition from AFA for their outstanding work on behalf of the Conservation Awards Program. In presenting the certificates, AFA's President Don. P. Johnston said, "The Association feels very strongly that the success of the entire Awards Program has been to a great extent due to the excellent leadership of these two gentlemen."

Mr. Hoskins, industrial forester for the Seaboard Air Line Railroad, had been a member of the committee since 1949, and had served as chairman from 1950 through 1955. He represented the field of business and industry. Dr. Mobley, who is the executive secretary of the American Vocational Association, represented education on the committee, and had served as a member since 1950. In 1949, Dr. Mobley was the recipient of AFA's Conservation Award in Education.

This year will mark the ninth annual Conservation Awards Program, the purpose of which is to encourage people everywhere to achieve greater goals in using our resources wisely by presenting to the world some of those individuals who have rendered significant service. These conservationists approved by AFA's Board of Directors will be honored at the traditional annual banquet of The American Forestry Association held this year at La Plata, Maryland, October 2.

Retiring chairman Hoskins, right, hands gavel to successor Wilson



PULP MILLS IN ALASKA

By MEL BLAIS

SOUTHEASTERN Alaska cannot avoid a population increase of at least 30 per cent in the next four or five years, because of three imminent pulp operations in the Tongass National Forest, Regional Forester Arthur W. Greeley recently predicted before a large "Alaska Day" luncheon crowd in Portland (March 12).

The three new pulp mills and logging operations will be situated near Wrangell, Juneau and Sitka, all based on 50-year contracts for federal timber, said Greeley, who is son of the late Col. William B. Greeley, onetime chief U. S. forester.

"But the Forest Service is now out ahead of its inventory information, and no more logging operations are contemplated," Greeley stated. "We don't know just how our Alaska forests will behave under pulp-type operations. There may be problems with reforestation, with salmon streams and recreation spots.

"We think we can handle these problems, but we need experience and analysis. We think these forests can support more pulp operations, but it also appears unwise to add more until we are sure of what we're doing."

Greeley outlined his region's industrial developments. The first, that of Ketchikan Pulp company at Ketchikan, has been in production for nearly two years and appears to be successful.

At Wrangell, the Pacific Northern Timber company, holds a 50-year sales contract on three billion board feet, and plans to start building this year. An old sawmill at Wrangell will be revived at the same time.

Near Juneau, Georgia-Pacific Plywood company through a subsidiary has been granted a 50-year sales contract on 7.5 billion board feet. Its pulp plant should be in operation by the summer of 1961.

At Sitka, the Alaska Lumber & Pulp company has been given a preliminary contract for 50 years on 5.25 billion feet, and it plans to build a pulp mill by 1961. This is an American corporation formed as a subsidiary to Alaska Pulp Co., Ltd., of Tokyo, Japan. Pulp and Rayon people in Japan have been seeking ways to obtain Alaska timber since 1952.



M E E T

INSIDE the Washington headquarters of The American Forestry Association, a relatively small, but highly specialized staff works to promote the goals of AFA and service the membership.

The headquarters staff is presently under the direction of Lowell Besley, executive director-forester, whose primary responsibilities are implementing AFA's Program for American Forestry and determining administrative policies. However, due to Mr. Besley's resignation, effective July 1, 1956, the Board of Directors at its last meeting voted to reorganize this office. The board thought it advisable to create the post of executive vice president, to handle the management and promotional activities of AFA, and to appoint a professional forester to execute the Program for American Forestry.

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Lowell Besley, resigning executive director-forester, piloted AFA's program



Under AFA's staff reorganization plan, executive vice president-elect, Fred E. Hornaday, will assume his new position on July 1, but will retain his responsibilities as director of advertising

THE STAFF

The headquarters staff of AFA operates as an integrated unit, although departmentalized, to more effectively implement the forestry program and adequately service the membership



Ovid M. Butler, the association's executive director emeritus, assists the conservation department. Here, Mr. Butler dictates to secretary Mrs. Nancy McMahon.



Secretary for Mr. Besley, Leslie Hunt will assist the new executive vice president, Mr. Hornaday



Mrs. Dorothy Dixon organizes the popular Trail Riders of the Wilderness



Keeping a watchful eye on the association's finances is the duty of business manager Robert Spencer, while the bookkeeper, Mrs. Jane Evans, balances the books



Membership supervisor Mrs. Dorothy Wright (seated) and staff (left to right) Mrs. Mary Scheitlin, Mrs. Nellie Thorne, and receptionist Mrs. Marjorie Willis. Mrs. Nettie Bakersmith not shown

MEET THE STAFF



Editor of *American Forests* since 1952, James B. Craig (right) discusses a magazine article with printer Louis Brown of Monumental Printing Co.



Fred E. Hornaday, magazine's advertising director, and production mgr. Mrs. Geraldine S. Kirkland



John Ferguson III (center), president of the Monumental Printing Company, which has printed the magazine for over twenty-five years.



Miss Betty Fadeley, magazine's assistant editor since Sept., is in charge of production



Magazine's art director James J. Fisher (left) and assistant Jackson K. Lambert, design the "layout" for *American Forests*



Editorial secretary-proofreader, Mrs. Lorraine Zelna is recent appointment to the staff

FORESTRY and the Soil Bank

Full use of federal and state forest agencies in activation of
Soil Bank is urged by Citizens Committee on Natural Resources

AN ANALYSIS of what conservation measures may be achieved under the proposed Soil Bank program, and how to achieve them, was being circulated in Washington last month by the Citizens Committee on Natural Resources headed by Dr. Ira Gabrielson. The study was authored by Dr. Dewey Anderson, of the Public Affairs Institute, Ray Marsh, former assistant chief of the Forest Service, and Dr. Spencer Smith, of the citizens committee.

Four major points are set forth in the study that is receiving consideration by the Congress. They are: 1) That any proposal to set aside cropland for an emergency period or to establish an acreage reserve must consider the best use of the land. This use should include a program of water, soil, forest, and wildlife conservation. 2) That any programs should recognize that timber is the only farm crop of importance that is in short supply. The joint benefit of using land, where possible, for trees results in an increase in the supply of timber and prevents land from being transferred to other surplus crops; 3) That any program of conservation must insure sound technical standards and practices. To be successful, this requires placing responsibility for forest conservation and utilization in the U. S. Forest Service, and for the development of grass, water, and wildlife facilities in the Soil Conservation Service. 4) That any sizeable transfer of cropland into a conservation reserve requires time—time to effect an administrative program, to grow nursery stocks of seed trees, to grow grass seed, and obtain needed qualified personnel.

The study does not attempt to evaluate any merits or demerits of the price support program (actually the Senate laid the matter of high-price supports to rest last month on the recommendation of Senator Clinton Anderson, of New Mexico) but it does point out that since a considerable sum of money would be involved in the activation of any Soil Bank plan it ought to be carefully

worked out, in detail, ahead of time. The study notes that "the Secretary of Agriculture is to make use of the Soil Conservation Service and the soil conservation districts in carrying out provisions of this program which specifically come within the professional competency and practice of that branch of conservation." The committee then urges that "the legislation provide that the Secretary utilize the U. S. Forest Service and the state forestry departments in establishing sound standards and practices for forest development and utilization. It cannot be too strongly stressed that conservationists generally are convinced that only by making use of the Forest Service for the particular work they have learned to do so well is there any chance of accomplishing the great good that is intended from forest conservation."

The only major item of agricultural production which is not surplus, and which will become increasingly scarcer as the population grows, is timber and wood, the study notes. Even on the basis of the lowest reasonable assumptions of the Timber Resource Review recently released estimates show a potential requirement of domestic forests 18 percent greater by 1975 than 1952, 50 percent more by 2000 than in 1952. The requirement of industry for wood increases even faster, 27 percent more by 1976 than 1952, 73 percent more by the year 2000.

"Wholesale lumber prices reached their all-time peak during 1955," the study said. "Viewing the long-time trends, wholesale lumber prices increased 283 percent from 1926 levels, while wholesale prices of all commodities had increased only 72 percent in that time span. The diminishing amount of accessible timber of good quality is the principal cause of this tremendous increase in price." However, this is not the case with farm prices. From 1951 to 1955, prices received by farmers dropped 22 percent.

In addition to trees for timber, wood pulp and fuel, forests are also an important factor in the control of

water, perpetuation of wildlife and other conservation needs, the study points out. A shelterbelt program in the western plains states should receive careful consideration as should various recreational phases in view of the increasing amount of free time people now have.

The report notes that in the proposed legislation there is provision for assistance to be given the states for tree planting and reforestation. "Not only should the departments of forestry in the several states be brought into the fullest feasible participation in the soil conservation reserve program, but additional aid should be provided them," the report stresses.

The proposed legislation provides for matching state and federal funds for reforestation work upon approval by the Secretary of state plans. It also provides a price reporting and research service which can be of value to farmers and small forest producers who are now not able to obtain such information and help, the report said.

"There is a section (d) of the proposed legislation dealing with the matter of the Secretary making a study of price trends and relationships for basic forest products, and reporting back within two years to the Congress his recommendations for a formula which will establish parity prices for such products," the report continued. "However, conservation experts believe that the establishing of such a parity price system for forest products is beset with great complexities so that it would be extremely difficult to operate satisfactorily."

In the report's summary, the authors stress that in any declaration of policy covering the establishment of a conservation reserve, there should be the stated objective of promoting proper forest land use as both an integral and profitable part of our farm enterprise. This recognition of the importance of trees on the farm will do much to make people aware of their value, and call the farmers' attention to the profitability of

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The garden of Gunston Hall, home of George Mason, was restored with Garden Week funds



GARDEN CLUB VIRGINIA

By BETTY FADELEY

In kitchen garden of historic Mount Vernon, building at left was used as a tool house.



Visit the famous estates of the Old Dominion during Historic Garden Week in Virginia, April 21-28, an annual event sponsored by the Garden Club to provide funds for its many restoration and conservation activities

THE Garden Club of Virginia has extended a cordial invitation to the public to visit the famous estates and gardens of the Old Dominion during Historic Garden Week in Virginia, April 21-28.

"Urbanity and graciousness distinguished the fete and great skill and management makes it easy to enjoy," wrote the *Chicago Tribune*, of Historic Garden Week, an annual event sponsored by the Garden Club to raise funds for the preservation and restoration of the grounds and gardens of historic shrines. Since these Garden Week tours were organized in 1929, the club has derived approximately \$350,000 for such projects. Some of the many estates whose gardens have benefited from this club's generosity include: Kenmore, Monticello, Woodrow Wilson's birthplace, Wilton, and Mary Washington Monument.

A notable example of one of the Garden Club's restoration projects is the garden of Gunston Hall, near Alexandria, Virginia, which was the home of George Mason, author of the Bill of Rights. A special feature of this garden, originally planted by Mason, is a magnificent hedge of English dwarf boxwood in the shape of a giant letter T. Much of this hedge had been severely damaged, and replacing this boxwood with specimens of equal size and beauty was a major task. In recreating this mid-eighteenth century garden, the funds derived from three Garden Week tours were necessary, the total cost being \$36,000.

The recipient of the funds from the 1956 Garden Week will be the gardens of Woodlawn Plantation. Also located near Alexandria, Woodlawn was the home of George Washington's adopted daughter Nelly Custis and her husband Lawrence Lewis, a nephew of Washington. George Washington selected the site and gave the plantation to the Lewises as a wedding present.

Historic Garden Week offers an excellent opportunity to all who are interested in the beautiful gardens and gracious mansions of the Old Dominion. Although several of the better known historical estates, such as Mount Vernon, are open to the public the year round, there are

many others both publicly and privately owned that are on exhibition only during Historic Garden Week. Guide books and maps for this state-wide exhibition are available by writing to the Garden Week Headquarters' Office, Jefferson Hotel, Richmond, Virginia.

Although famed estates will be opened throughout Virginia, perhaps the most interesting tour is the one planned for the Alexandria District. Located just a few miles south of Washington, D. C., the visitor will be able to catch a glimpse of 18th Century life when George Washington and his associates were residents of the area.

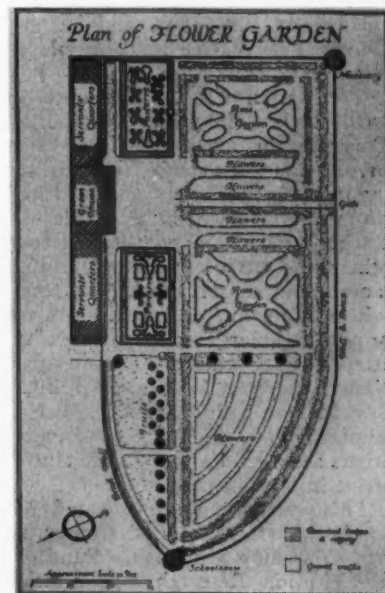
Besides Mount Vernon, Gunston Hall, and Woodlawn Plantation, many other historical sites will be included in the Alexandria tour. Rippon Lodge, a charming plantation which furnished two mistresses for Mount Vernon; the Dr. Brown House, owned by Washington's physician, which has a boxwood bordered garden in the form of a Norman Cross; and Robert E. Lee's boyhood home, where Washington was a frequent visitor. A total of 16 private homes will be shown during the tour, some never before opened to the public.

Many other phases of colonial life will also be featured by the Alexandria area. Some of the shrines on exhibition will include the famous old Gadsby's Tavern, which served as the center of social and political life of the period; Pohick Church, built under the supervision of George Washington and George Mason; and the Stabler-Leadbeater Apothecary Shop which houses an outstanding collection of authentic antique drug store furnishings, and has on display interesting documents and prescriptions, including an amusing note from Martha Washington.

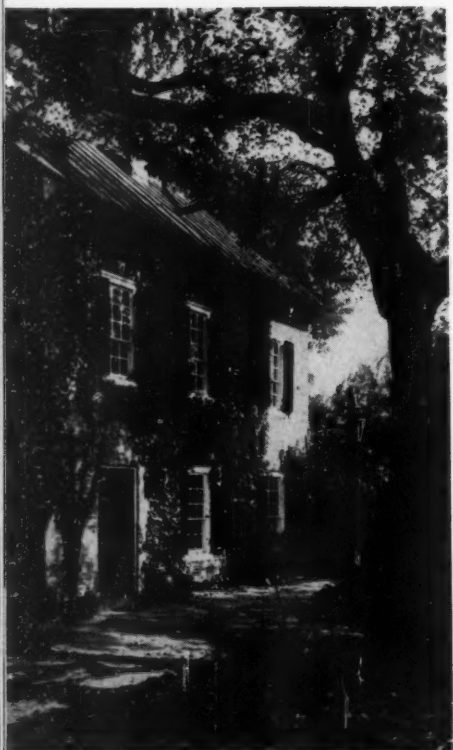
However, sponsoring Historic Garden Week is only one phase of the Garden Club's extensive program. The members of this club also devote much time and effort to the conservation of Virginia's native beauty. When the club was organized in 1920, one of the avowed purposes was "... the beautifying of cities, towns, and highways, as well as the conservation in Virginia of



Rippon Lodge near Woodbridge, Va., furnished two mistresses for Mount Vernon



Formal gardens, such as those of Mount Vernon, predominated in colonial times



The Dr. Brown House in Alexandria was home of Washington's physician

the rich endowment of nature in forests, plants, and birds."

Throughout the years of the club's existence its members have vigorously tackled such problems as plant pest control, removal of disfiguring bill boards, and stream pollution. The club has also sponsored legislation for the protection of native shrubs and wildflowers and has encouraged decorative roadside planting.

The Garden Club, a federation of local garden clubs, has a standing Conservation Committee. At the present time this committee is assisting local clubs to organize consulting libraries which will be available for teachers, schools, Scout groups and others who are interested in learning more about conservation. The committee is encouraging local clubs to provide scholarships to children to attend the Garden Club-sponsored Nature Camp at Vesuvius, Virginia. Last year 44 children were awarded scholarships to this camp, and many others attended because of the club's active interest in the project.

This year the club awarded a \$100 scholarship for the 1956 Conservation Workshop Scholarship Fund of the Virginia Research Use Educational Council, which is planning one or more conservation workshops

or short courses at Virginia universities or colleges for twenty or more teachers. The club hopes to be able to award more of these scholarships.

The Garden Club actively supports conservation legislation, and is particularly interested, at the present time, in a bill to protect owls and hawks.

Previously the Garden Club had made vigorous protests against the proposed parkway along the Chesapeake and Ohio Canal, highway across Theodore Roosevelt Island, destruction of Dyke Marsh, and indiscriminate spraying by the power companies. While on the positive side, club members campaigned for the preservation of Goshen Pass, which was later dedicated as a state park, and Seashore State Park in Princess Anne County.

The conservation programs of the local garden clubs are also extensive. Many clubs sponsor broadcasts on conservation of natural resources, organize conservation exhibits for schools, flower shows, etc., and purchase books for school distribution.

Tree planting projects are an im-

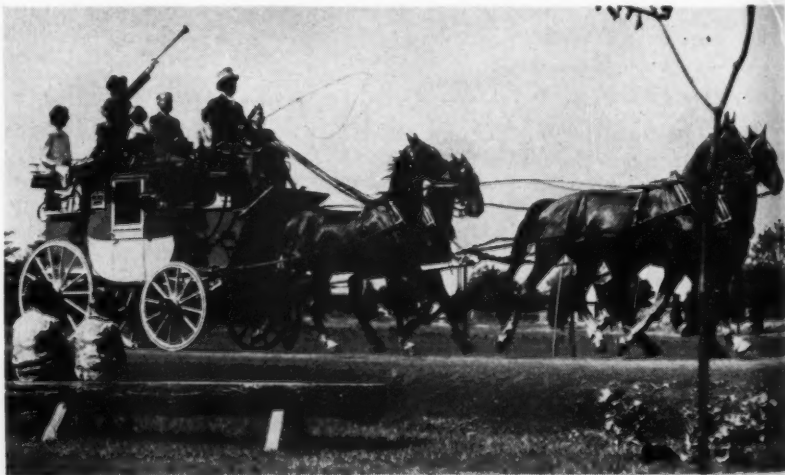
portant phase of local club programs. The Winchester-Clarke club planted 1,000 dogwood trees in their area in one year, and many of the clubs have special tree planting ceremonies on Arbor Day. Several clubs maintain the grounds of city libraries, and promote roadside planting.

Local Garden club programs also include a variety of other projects. The Norfolk Garden Club developed a wildlife sanctuary; the Princess Anne Garden Club maintains a wildflower preserve and conducts an extensive nature program in the county; the Boxwood Garden Club (Richmond) has charge of the restored garden at "Craig House," home of Poe's Helen; and, the Augusta Club, with the help of the Forest Service, maintains the Ramsey Draft Trail in Augusta County.

The Old Dominion State, and indeed the Nation, owe a debt of gratitude to this group of ladies whose persistent efforts have been such a potent influence in the conservation of Virginia's native beauty and the preservation of its historic homes and gardens.



Woodlawn Plantation, Washington's wedding gift to Nellie Custis and Lawrence Lewis. Receipts from Garden Week will restore the gardens

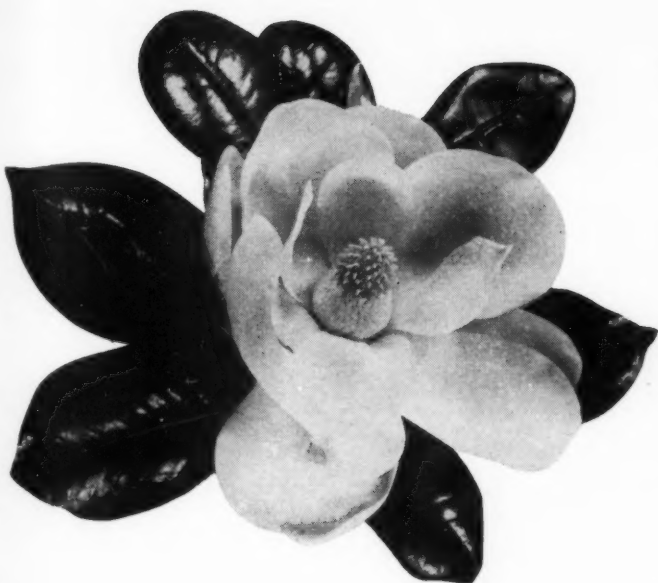


Daily trips in true 18th century "Brewster Drag" coach-and-four from Mount Vernon to Woodlawn, will be an added attraction of Garden Week

Creamy-white blossoms amid lustrous green leaves distinguish our most beautiful flowering trees

OUR NATIVE MAGNOLIAS

By WARREN D. BRUSH



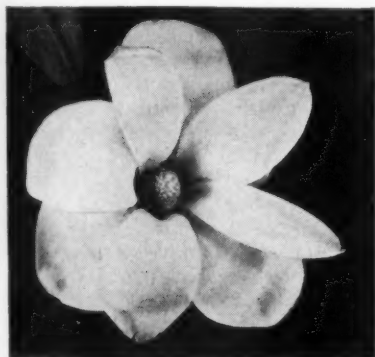
AS flowering trees the magnolias are unsurpassed. The flowers of several species grown in the United States, including four that are native, measure from eight to twelve inches across. They occur singly at the ends of the branchlets

and the glossy bright green leaves may be as much as a foot to two and a half feet in length. The flowers of the native magnolias are white or nearly white, as are also those of the introduced trees except for a few species, their hybrids and

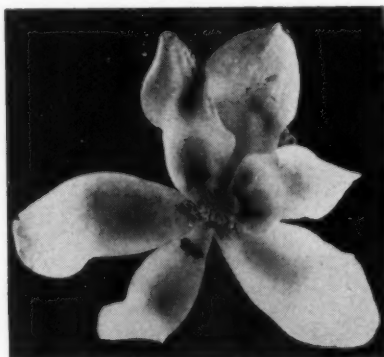
varieties, the flowers of which vary from shades of pink or purplish. They open in early spring before the leaves appear in nearly all of the foreign species whereas in the native trees the flowers come later, with or after the leaves.

Of the 30 to 35 known species of magnolias occurring in eastern North America, southern Mexico and eastern and southern Asia, about 18 are considered desirable for growing in the United States and nine of them are native. In addition to their value for ornamental purposes, some of the native species furnish wood for manufactured products.

The magnolias provide a wide range of sizes from large trees to small trees and shrubs. They serve a variety of uses in landscaping. The larger trees are suitable for mass effects and backgrounds, and as single specimens over large areas including parks; the smaller trees and shrubs are adapted for planting in small landscape compositions and on spacious lawns. The introduced species belong almost entirely in the latter class.



Cup-shaped flower of Umbrella Magnolia



Flower of the stately Bigleaf Magnolia

The Cucumber's bell-shaped blossoms



Pyramid flowers measure 3 to 5 inches



Cone-shaped fruit bears scarlet seeds

The magnolias are among the most ancient trees in the world, dating back to early plant life—almost as ancient as the ginkgo. The present members are remnants of a very extensive group of North Temperate forest trees which formerly grew in central Europe, Siberia, western North America, Canada and Greenland until they were pushed south by the great glaciers. The simple construction of the flower indicates that they are among the oldest of the broadleaf trees.

The magnolias are easily cultivated and grow rapidly. They require, however, deep, rather moist, well drained soil and can be grown successfully in the United States except for the drier and colder parts of the country. The species with extremely large leaves require some protection from high winds. Although they have thick, fleshy roots, they are not easily transplanted. A large ball of earth should be included wrapped with burlap and care should be taken not to break and bruise the roots. They are easily raised from seed which should, however, be planted as soon as it is ripe as it soon loses its ability to germinate. In general, the magnolias require plenty of room for development as the limbs extend out from the trunk, often near the ground. They will, however, tolerate some shading. They are not suitable as street trees because of their wide-spreading limbs and, moreover, the bark is easily injured. Their freedom from insect and fungus attack gives them a great advantage over many other trees.

The leaves of the magnolias have smooth margins and are unlobed except for a few species the leaves of which have a small lobe or "ear" on either side at the base. They are distributed alternately along the twig or may be clustered near the

tip. The flowers of nearly all species are pleasingly fragrant and are made up of six to twelve petals. The scarlet seeds which appear as the cone-like fruit matures, are very attractive; when first released they are suspended by a slender thread but before dropping to the ground they may be carried for some distance by the wind. The large winter buds are very conspicuous and are covered by a single scale.

Of the nine native magnolias, three of them may be classed as large trees, and the others as small trees some of which may take on a shrub-like form.

Cucumber Magnolia, Cucumber tree (*Magnolia acuminata*)

In the forest this tree attains a height of 90 feet or more with a trunk three to four feet in diameter which may be clear of branches for as much as 50 feet. Such trees are commonly used in lumber manufacture. Trees grown in the open, however, develop long limbs along the trunk, sometimes so low as to touch the ground. The flowers are inconspicuous, bearing little superficial resemblance to the flowers of the other magnolias. They are bell-shaped, green or greenish-yellow, three inches high and often hidden by the yellow-green leaves which measure six to ten inches long. Unlike the other native species, they are pointed at the end from which the name *acuminata* is derived. The oblong, curved fruit, two to three inches long, resembles somewhat a cucumber, hence the name "cucumber magnolia."

The natural range of the tree extends from western New York through the Appalachian Mountain region, where it attains its best development on low mountain slopes and on the rocky banks of streams, to southwestern Mississippi. It is a rapid grower and grows farther

north than the other magnolia species but is not often used as an ornamental. It is utilized as stock on which other magnolias are grafted.

This is the only magnolia species with deeply furrowed bark. The trees are cut along with yellow-poplar (tuliptree) and the lumber is mixed with the latter under that name.

Yellow Cucumber tree (*Magnolia cordata*)

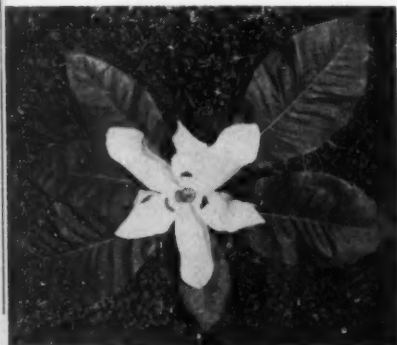
Resembling cucumber magnolia closely, this is a smaller tree attaining a height of about 30 feet. The yellow flowers are smaller (about two inches) but more conspicuous and the leaves are smaller (three to six inches). The tree has an upright but open growth and blooms a little earlier (late May). It does not grow as rapidly as the cucumber magnolia and is very desirable as an ornamental for the small place. It is said to bloom when quite young and often through the summer. This is a rather rare tree, growing naturally in central North Carolina, South Carolina and Georgia. It has been grown as far north as New York City.

Southern Magnolia (*Magnolia grandiflora*)

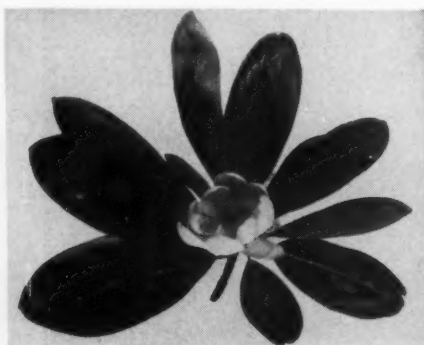
The shiny, bright green, leathery leaves, crowded near the ends of the stiff, ascending branches give this round-topped tree a tropical appearance. As a matter of fact, it is more of a southern tree and is not hardy as far north as the other native species. In Washington D. C. it is quite a common tree but is not considered hardy farther north although trees have been grown in sheltered places not far from New York City. Its natural growth range extends from southeastern North Carolina to central Florida and eastern Texas. Although a large tree, sometimes as much as 90 feet in height, it is much used as an ornamental and has been called "the elegant aristocrat of American trees." It needs plenty of room for growth and is often used as single specimens and also to produce mass effects.

While not as large as those on the bigleaf magnolia, the flowers—five to eight inches across—are conspicuous, generally occurring in great profusion with a background of large glossy leaves of about the same length. Its period of blooming extends from late spring well into the summer months. Each

(Turn to page 58)



Enormous leaves, often 20 to 30 inches in length, distinguish Bigleaf Magnolia



Globular or cup-shaped flower of Sweetbay, smallest native magnolia blossom

NEW...
Bonus Powered
too!

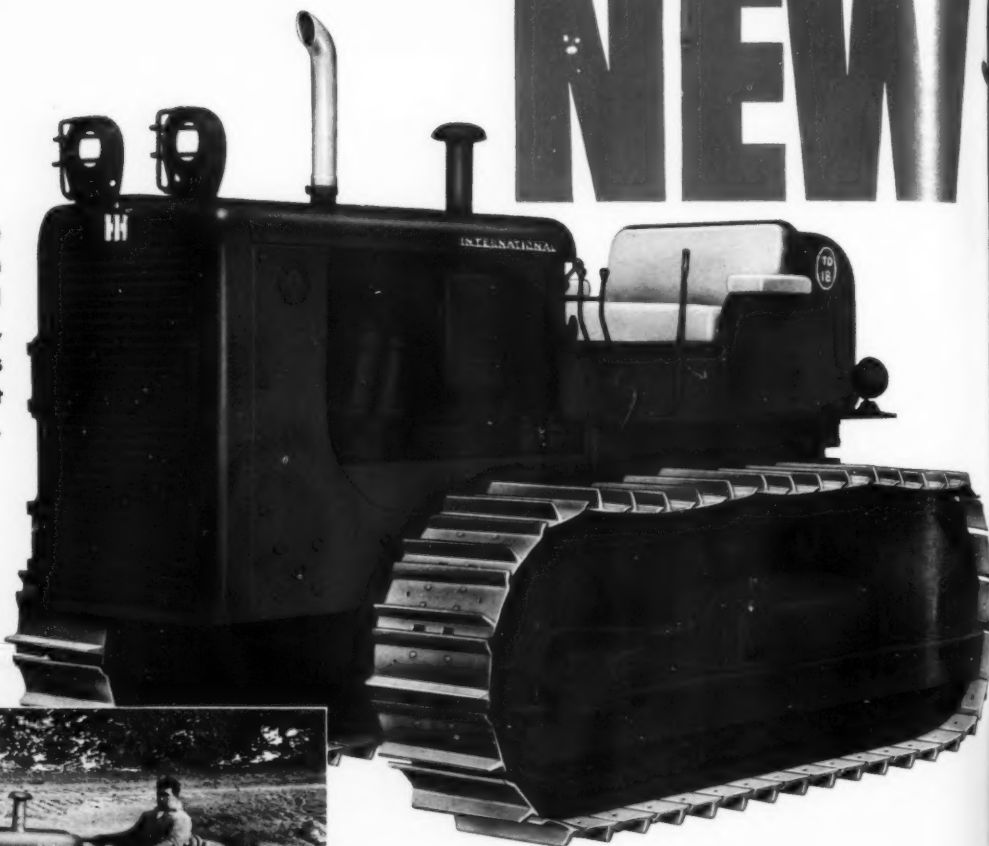


NEW

**124 Net Engine
Horsepower. In
International
Drott Machines,
Engine develops
134 Net
Horsepower.**

182 Series

**TD
18**

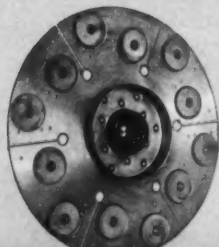


TD-18 diesel (series 182) delivers 103 drawbar horsepower, with weight of 29,050 pounds (without equipment). All-weather electric starting, standard equipment. "New look" visibility, operating ease never before available. New heavy-duty, swinging-door type radiator guard is "standard"—for carrying heavy front-mounted equipment. Gives big tractor performance in pioneering under roughest conditions. Powers 3-yard International Drott Skid-Shovel, anywhere.

No costly delay from a "killed" or cold engine—you start fast! Famous International gasoline-conversion diesel starting—actual "in-seat" starting—is standard equipment on this new crawler line. With "push-button" ease, you get seconds-fast starting, whether the engine is cold, or stopped! And you're on the job seconds-fast, when minutes are dollars.

Ceramic Engine Clutch Facings
Save power, defy heat, prolong life! Uncomplicated, familiar-to-all engine clutch design of these new crawlers have power-holding, heat-defying, long-lasting Ceramic facings. These facings reduce lever-pull up to 30%, provide amazing heat immunity, add service freedom, cut upkeep!

Now . . . 500-hour lube intervals with new metal-to-metal, track roller seals. You save the time and expense of frequent inspections or lubrications, with the new full-floating, cartridge-type, track roller seals provided on the TD-24, TD-18, and TD-14. These precision-lapped, metal-to-metal seals are so effective they give you safe 500-hour intervals between roller lubrications!

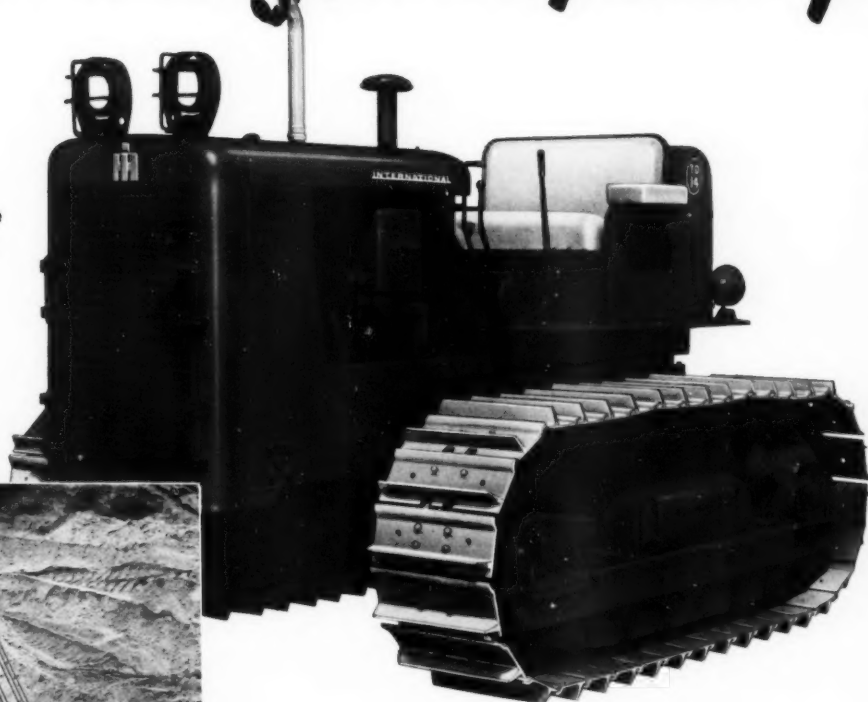


International Crawlers *give* *plus new design to speed you*

**95 Net Engine
Horsepower.**

142 Series

**TD
14**

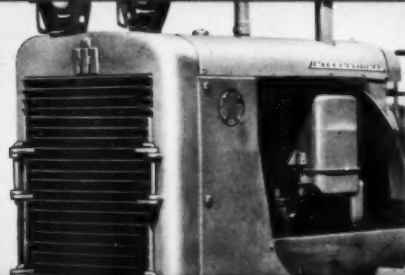
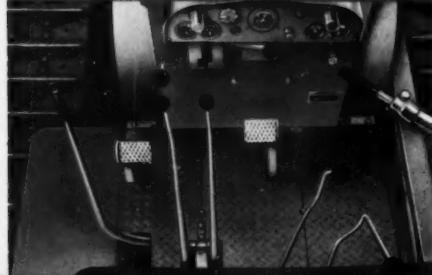
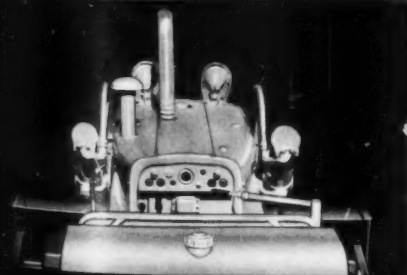


TD-14 (series 142), 78.5 drawbar hp; weighs 21,095 pounds (without equipment). Features "new look" engineering, job-speeding visibility, new equipment-carrying and operating strength. All-weather electric starting, standard equipment. It's a fast, responsive, big-capacity dozing tractor. Powers $2\frac{1}{4}$ cu. yd. International Drott Skid-Shovel or Four-In-One; 15-ton capacity Superior Pipe-Boom; other similar-sized equipment.

Control Tower Visibility adds operating efficiency! See how new International crawlers are streamlined for complete job-control visibility. Seat is amply high to provide full view of equipment, terrain, and variations requiring operator action, to maintain efficiency.

Clean, safe deck cleared for action! Look down on that safe, clean, flush deck—a platform for full production. The wide, man-size seat is fully-adjustable; foam rubber padded. Instruments centralized for one-glance check-up! Even a cigarette lighter is provided, to prevent needless stops!

Pressurized Closed Cooling System for Positive Performance Protection! New pressurized cycling systems provide fast warm-up under thermostatic control—and positive ideal temperature control with forced circulation through full-length jackets. That aids clean combustion, guards oil film strength, protects performance. Radiator core assembly is easily-removable, without disturbing radiator guard or mounted equipment.

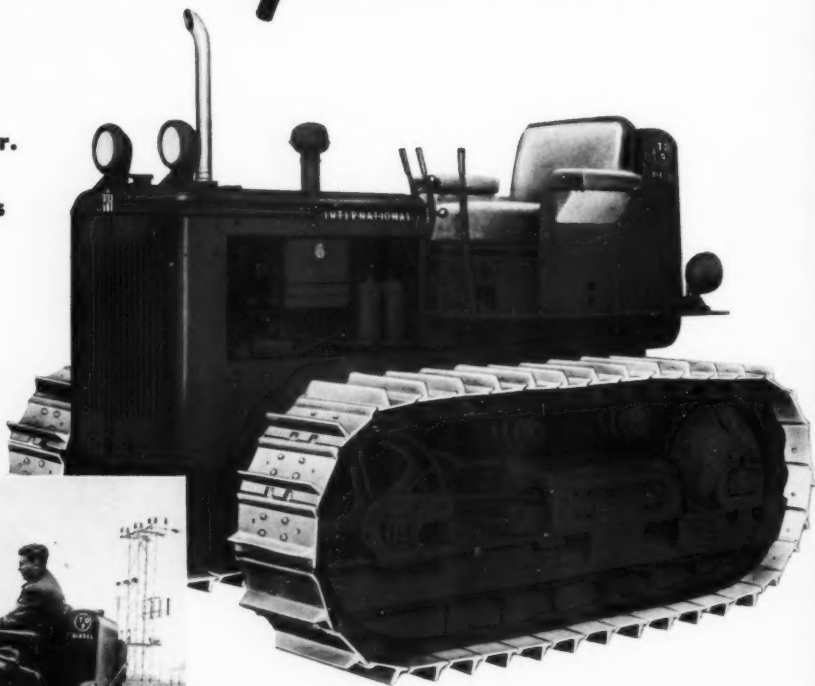


Give you Bonus horsepower— for your jobs, control your costs!

**66 Net Engine Horsepower.
In International Drott
Machines, Engine develops
71 Net Horsepower.**

91 Series

**TD
9**

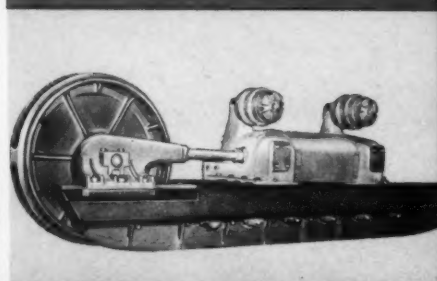


TD-9 diesel, (series 91), delivers 54.5 drawbar hp—up 32%. Operating weight (5-roller model), without equipment, 12,000 pounds. Now up in a new heavy-duty job range. New power is backed by new power-train and track frame strength, new operating and servicing ease. Powers International Drott 1½ cu. yd. Skid-Shovel and other equipment requiring similar power.

480-hr. full-flow lube oil filters guard bearings, cut upkeep! Every drop of oil on its way to lubricate moving engine parts must pass through these new abrasive-trapping micron-type filters—with the capacity, strength, and efficiency to give 480 hours of wear-fighting, upkeep-cutting duty!

Hydraulic Power Steering Inspires Operator Cooperation! New hydraulic power steering of the TD-14 and TD-18 cuts operator fatigue—and along with the other big effort-saving advantages, makes it easier than ever to deliver full-capacity production! TD-6 and TD-9 have spring boosters to lighten the operator's job.

"Bridge-strong" track frames for "slam-bang" conditions! You are looking at the strongest track frame in the industry for crawlers of TD-18 and TD-14 sized Heavy steel box-section beams, weld-joined to heavy stress-relieved steel plates—and rigidly gusset-braced—they're your foundations for record-making "rough-and-tumble" performance!

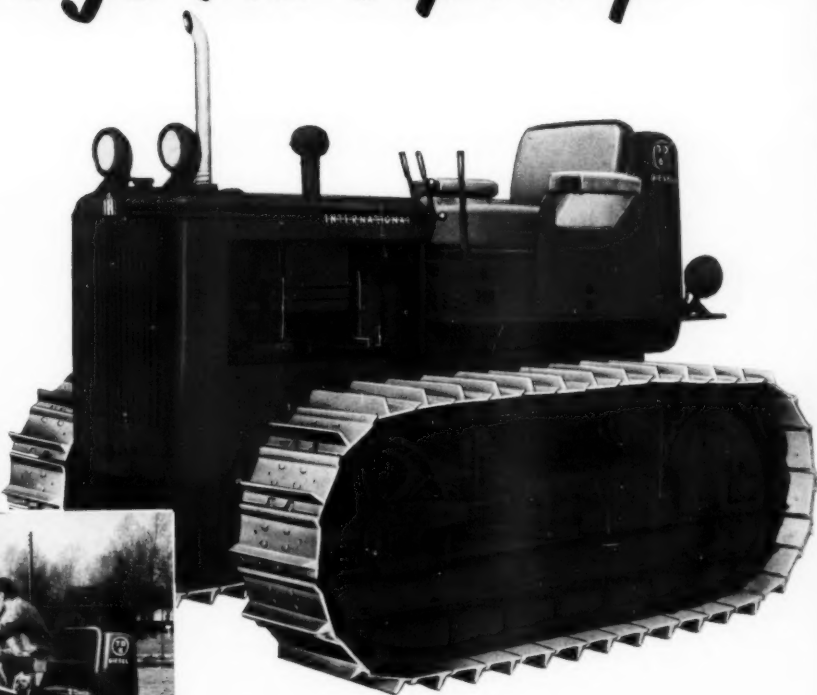


Steps up a size... in job range and capacity!

**50 Net Engine Horsepower.
In International Drott
Machines, Engine develops
55 Net Horsepower.**

61 Series

**TD
6**

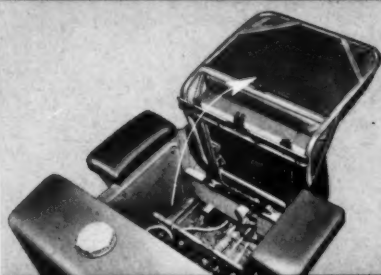


TD-6 diesel (series 61), 41.5 drawbar hp, up 23%! Steps up a whole size in work capacity and earning ability. Operating weight (5-roller model), without equipment, 8,890 pounds. Powers 1-yard International Drott Skid-Shovel or Four-In-One; serves as clean-up dozer unit on any-sized contract; versatility and low operating cost to do many sizes of jobs for every size of contractor.

Full-view, one-glance panel saves time—cuts effort! One quick glance at this new full-view panel, with centralized instrument grouping, gives the operator the instant check-up, to assure that lubrication, generator, and cooling system are "perking" for full production!



New Fold-over Seat Aids Fast, Centralized Servicing! New fold-over seat of the TD-6 and TD-9 models allows operator to give you the time and convenience advantages of centralized steering clutch assembly servicing. Lubricant fittings are conveniently grouped and fully accessible!

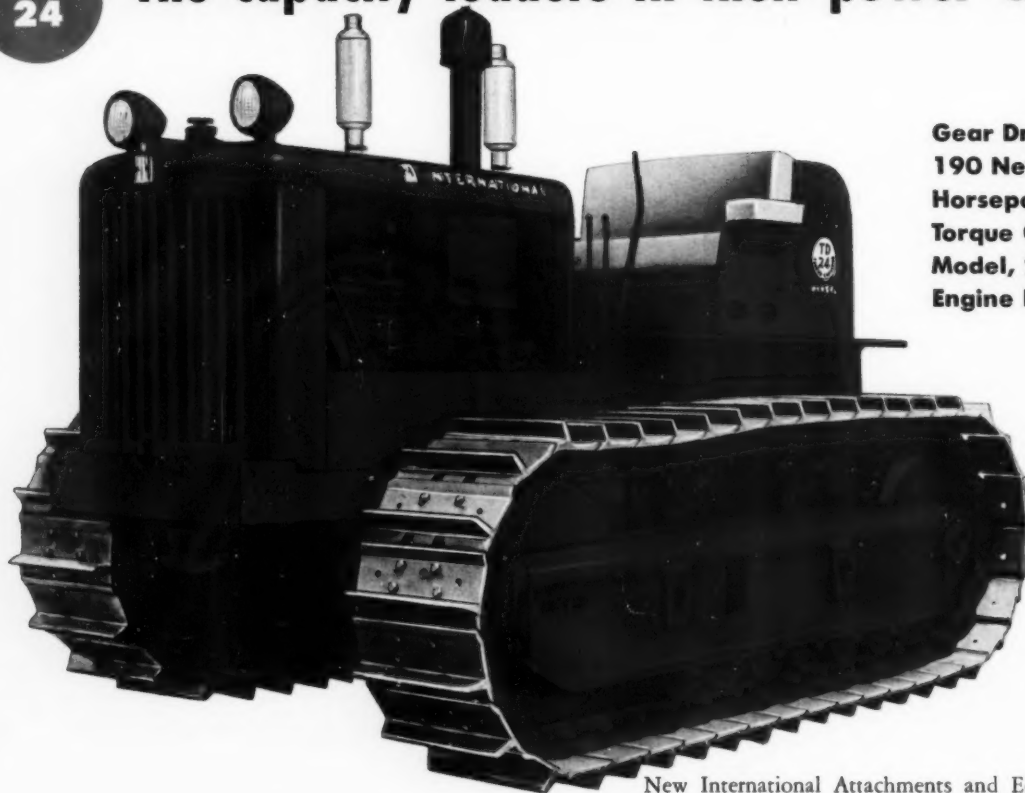


Thorough air filtration assured by new under-hood cleaner! Instead of being "in your lap," or a knee-bumping obstruction, air cleaners of the new International crawlers are side-mounted—for easy accessibility, yet out of the way. They have big capacity and high efficiency, too, for positive air filtration!



TD
24

The capacity leaders in their power class



**Gear Drive Model,
190 Net Engine
Horsepower
Torque Converter
Model, 200 Net
Engine Horsepower**

Massive—with 43,080 pounds of rock-doing, scraper-pushing brawn (7-roller torque converter model)*—the TD-24 can give them all a lesson in operating ease, big capacity, and positive load control! Has instant high-low range and exclusive Planet Power steering to give you its tremendous *pushing, pulling, and lifting* power on any terrain—with responsiveness not available elsewhere! *Live power on both tracks, on every turn!* Backed by equipment engineered to match its strength and power!

*Gear Drive 7-roller model weighs 42,780.


New International Attachments and Equipment team with new bonus-powered crawlers to give you high-producing performance packages: 42 new Bulldozers, to fit your needs exactly . . . 4 new Drott Loaders, to fit your needs exactly . . . 4 new Superior® Pipe-Booms, 8 to 55-ton capacity; 3 job-proved PCU'S! . . . **Measure . . . compare . . . prove to yourself . . . new bonus-powered International crawler tractors beat anything else on tracks!** Try this turnpike-paced new power for capacity, operator preference, profit potential. Ask your International Industrial Power Distributor for a bonus-powered demonstration to your specifications!



International Industrial Power

INTERNATIONAL HARVESTER COMPANY, 180 N. Michigan Ave., Chicago 1, Illinois

A COMPLETE POWER PACKAGE INCLUDING: Crawler, Wheel, and Pipe-Boom Tractors . . . Self-Propelled Scrapers and Bottom-Dumps . . . Tractor and Rubber-tired Loaders . . . Diesel and Carbureted Engines . . . Motor Trucks.



These are the Champs

PART II

AFA's Big Tree Contest is a lively and continuous campaign. In operation for over 15 years, the contest has attracted nation-wide interest

IN September 1940, AFA launched a campaign to locate the largest living specimens of American trees. After 15 years of diligent search by cooperating individuals, the following list of "champions" are on record. (The first part of the results of the Big Tree Contest appeared in the September 1955, issue of *AMERICAN FORESTS*.) Common and botanical names listed conform to "Standardized Plant Names" (2nd Edition—1942) issued by the American Joint Committee on Horticultural Nomenclature. Identification

and measurements are by the nominators.

The challenge is to locate trees larger than those listed, if they exist, and also giants of species not listed, as size alone is the determining factor in the Big Tree Contest. Under the contest rules three measurements are required: circumference (diameter breast high), height and crown spread. Failure to follow these basic rules will disqualify a contender. For more measurement details, write for AFA's "How to Measure a Tree." Submit all reports to The American

Forestry Association, 919 Seventeenth Street, Northwest, Washington 6, D. C.

The Big Tree Campaign was originally instigated to halt the disappearance of more and more champions, and AFA's program has served to focus attention on the benefits of conserving these cherished landmarks. The campaign is a nation-wide project with participants from every state in the union. Although in a sense competitive, the campaign is continuous, and the benefits far-reaching.

Species	Circumference at 4½ feet	Height	Spread	Location of Tree and Nominator
MAHOGANY				
Mountain (see Mountainmahogany)				
MANZANITA				
Whiteleaf, <i>Arctostaphylos viscida</i>	7'4"	21'	24'	Lassen National Forest, California. Clyde W. Lewis, Stirling City.
MAPLE				
Bigleaf, <i>Acer macrophyllum</i>	28'	----	66'	Near Haydens Bridge, Lane County, Oregon. Oliver V. Matthews, Salem.
Black, <i>Acer nigrum</i>	9'7"	112'	57'	Cox Woods, Paoli, Indiana. Kendall Laughlin, Chicago, Illinois.
Chalk, or Whitebark, <i>Acer leucoderme</i>	1'7"	29'	19'	Ouachita National Forest, Arkansas. Kendall Laughlin, Chicago, Illinois.
Douglas Rocky Mountain, <i>Acer glabrum douglasii</i>	5'6"	50'	20'	Birch Bay, Washington. Oliver V. Matthews, Salem, Oregon.
Mountain, <i>Acer spicatum</i>	3'	25'	10'	Great Smoky Mountains National Park, Tennessee. S. Glidden Baldwin, Danville, Illinois.
Red, <i>Acer rubrum</i>	20'8½"	60'	50'	Bard College, Annandale, New York. Fred W. Oettinger, Poughkeepsie.
Drummond Red, <i>Acer rubrum drummondii</i>	6'5"	52'	46'	St. Francis River, Dunklin County, Missouri. Kendall Laughlin, Chicago, Ill.
Trident Red, <i>Acer rubrum trilobum</i>	9'6"	83'	35'	Warren Woods, Three Oaks, Michigan. Kendall Laughlin, Chicago, Illinois.
Silver, <i>Acer saccharinum</i>	22'10"	90'	110'	Fryeburg-Harbor, Maine. John D. Kendig, Manheim, Pennsylvania.
Striped, <i>Acer pensylvanicum</i>	3'10"	37½'	25'	Near Princeton, Massachusetts. Jeffrey R. Short, Jr., Chicago, Illinois.
Sugar, <i>Acer saccharum</i>	19'9"	116'	75'	Garret County, Maryland. F. W. Besley, Laurel.
Vine, <i>Acer circinatum</i>	3'8"	30'	54'	Wilhoit Mineral Springs, Marion County, Oregon. Oliver V. Matthews, Salem.
MESQUITE				
Honey, <i>prosopis glandulosa</i>	10'10"	60'	65'	Near Gatesville, Texas. Weldon D. Woodson, Los Angeles, California.
Velvet, <i>Prosopis velutina</i>	15'	55'	76'	Coronado National Forest, Arizona. Gilbert Sykes, Tucson.
MOUNTAINASH				
American, <i>Sorbus americana</i>	5'6"	----	----	Great Smoky Mountains National Park, Tennessee. S. Glidden Baldwin, Danville, Illinois.
MOUNTAINLAUREL—(see Kalmia)				
MOUNTAINMAHOGANY				
Birchleaf, <i>Cercocarpus betuloides</i>	1'9"	----	----	Medford-Crater Lake Highway, Jackson County, Oregon. Oliver V. Matthews, Salem.
Curlleaf, <i>Cercocarpus ledifolius</i>	10'7"	24'	67'	Nevada National Forest, near Baker, Nevada. S. D. Warner, Baker, Nevada.
MULBERRY				
Black, <i>Morus nigra</i>	15'1"	65'	70'	Near Easton, Maryland. F. W. Besley, Laurel.
Red, <i>Morus rubra</i>	12'1"	47'	61'	Ambler, Pennsylvania. Philip G. Nordell, Ambler.

Leaves (from left to right) ashleaf, maple, sugar maple, and silver maple



Species	Circumference at 4½ feet	Height	Spread	Location of Tree and Nominator
White, <i>Morus alba</i>	23'	—	—	Near Parkersburg, West Virginia. Miss C. E. Aumiller, Washington.
MYRTLE				
Oregon—(see Californialaurel)				
Wax—(see Waxmyrtle)				
OAK				
xBebb, <i>Quercus bebbiana</i>	7'1"	58'	76'	Swope Park, Kansas City, Missouri. Kendall Laughlin, Chicago, Illinois.
Black, <i>Quercus velutina</i>	19'9"	90'	138'	Lloyd's Neck, L. I., New York. Mrs. E. M. Thyvaert, San Juan, P. R.
California Black, <i>Quercus kelloggi</i>	36'	—	—	Yosemite National Park, California. John B. Wosky, Yosemite National Park.
Missouri Black, <i>Quercus velutina missouriensis</i>	6'2"	53'	56'	Swope Park, Kansas City, Missouri. Kendall Laughlin, Chicago, Illinois.
Blackjack, <i>Quercus marilandica</i>	7'11"	48'	55'	Waterloo, Howard County, Maryland. F. W. Besley, Laurel.
xBottom, <i>Quercus runcinata</i>	9'5"	80'	70'	Heathwood Park, Kansas City, Kansas. Kendall Laughlin, Chicago, Illinois.
Bur, or Mossy cup, <i>Quercus macrocarpa</i>	17'6"	127'	101'6"	Big Oak Tree State Park, Missouri. Kendall Laughlin, Chicago, Illinois and Prof. R. E. McDermott, Columbia, Missouri.
xBushes, <i>Quercus bushi</i>	8'5"	61'	67'	Forest Park, St. Louis, Missouri. Kendall Laughlin, Chicago, Illinois.
Cherrybark, <i>Quercus falcata leucophylla</i>	24'1"	110'	80'	Near Cumberstone, Maryland. S. Glidden Baldwin, Danville, Illinois.
Chestnut, <i>Quercus montana</i>	19'6"	82'	101'	Near Cecilton, Maryland. Karl E. Pfeiffer, Annapolis.
Swamp Chestnut, or Basket, <i>Quercus prinus</i>	21'3"	97'	117'	Near Rock Fall, Kent County, Maryland. F. W. Besley, Laurel.
Chinkapin, <i>Quercus muhlenbergi</i>	20'6"	55'	75'	Near Lattaville, Ohio. W. R. Carpenter, Jenkintown, Pennsylvania.
Dwarf chinkapin, <i>Quercus prinoides</i>	1'4"	19'	15'	Pennsylvania State University, State College, Pennsylvania. H. H. Arnold, State College.
xDeam, <i>Quercus deami</i>	8'	85'	50'	Near Bluffton, Indiana. S. Glidden Baldwin, Danville, Illinois.
Durand, <i>Quercus durandi</i>	14'9"	139'	69'	Noxubee National Wildlife Refuge, Mississippi. Eugene Cypert, Jr., Paris, Tenn.
Engelmann, <i>Quercus engelmanni</i>	10'3"	85'	110'	Pasadena, California. Woodbridge Metcalf, Berkeley.
Gambel, <i>Quercus gambeli</i>	18'3"	47'	85'	Gila National Forest, New Mexico. Dahl J. Kirkpatrick, Albuquerque.
Laurel, <i>Quercus laurifolia</i>	23'6"	75'	—	Near Sebring, Florida. William F. Jacobs, Tallahassee.
Live, <i>Quercus virginiana</i>	35'	78'	168'	Near Hahnville, Louisiana. Charles Genella, New Orleans.
California Live, <i>Quercus agrifolia</i>	24'10"	108'	129'	Chiles Va Mey, Napa County, California. Woodbridge Metcalf, Berkeley.
Canyon Live, <i>Quercus chrysolepis</i>	36'3"	70'	130'	Angeles National Forest, California. G. Armstrong, Los Angeles.
Interior Live, <i>Quercus wislizeni</i>	20'	100'	100'	Near Sacramento, California. Arthur J. Teller, Del Paso Heights.



From left to right
leaves of the white
oak, the black oak
and the sassafras

Species	Circumference at 4½ feet	Height	Spread	Location of Tree and Nominator
xOracle, <i>Quercus morehus</i>	8'8"	30'	40'	Between Coahuila Saddle and Juan Diego Flat, California. Donald R. Bauer, San Bernardino National Forest.
Overcup, <i>Quercus lyrata</i>	15'5"	114'	72'	Patuxent Wildlife Refuge near Laurel, Maryland. Karl E. Pfeiffer, Annapolis.
Pin, <i>Quercus palustris</i>	16'	135'	135'	Saint Davids, Pennsylvania. J. W. Ritter, Saint Davids.
Northern Pin, <i>Quercus ellipsoidalis</i>	9'9"	86'	65'	Linne Woods, Cook County, Illinois. Kendall Laughlin, Chicago.
Post, <i>Quercus stellata</i>	13'9"	80'	103'	Charlotte County, Virginia. F. C. Pederson (deceased).
x <i>Quercus mutabilis</i>	10'7"	131'	68'	Big Oak Tree State Park, Missouri. Kendall Laughlin, Chicago, Illinois.
Red				
Eastern Red, <i>Quercus borealis maxima</i>	22'10" @3'	89'	55'	Conneaut, Ohio. F. H. Love, Conneaut.
Northern Red, <i>Quercus borealis</i>	24'9"	60'	---	Thorndale, Millbrook, New York. H. F. Hedgecock, Poughkeepsie.
Southern Red, <i>Quercus falcata</i>	24'1"	122'	132'	Cumberstone, Maryland. F. W. Besley, Laurel.
Swamp Red, <i>Quercus falcata pagodaefolia</i>	20'9"	95'	139'	New Madrid, Missouri. Kendall Laughlin, Chicago, Illinois and Prof. Robert E. McDermott, Columbia, Missouri.
Scarlet, <i>Quercus coccinea</i>	13'11"	97'	80'	Forest Hill, Maryland. F. W. Besley, Laurel.
Sargent Scarlet, <i>Quercus coccinea tuberculata</i>	7'9"	75'	60'	Gatlinburg, Tennessee. S. Glidden Baldwin, Danville, Illinois.
Schneck, <i>Quercus shumardi schneckii</i>	11'10"	108'	75'	Big Spring State Park, Missouri. Kendall Laughlin, Chicago, Illinois.
Scrub, <i>Quercus ilicifolia</i>	1'4"	36'	12'	Pennsylvania State University, State College, Pennsylvania. H. H. Arnold State College.
California Scrub, <i>Quercus dumosa</i>	13'5"	33'	55'	San Luis Obispo County, California. Woodbridge Metcalf, Berkeley.
Shingle, <i>Quercus imbricaria</i>	10'2"	81'	77'	Dexter, Missouri. Kendall Laughlin, Chicago, Ill.
Shumard, <i>Quercus shumardi</i>	17'5"	140'	100'	Near Keensburg, Wabash County, Illinois. Jeffrey R. Short, Jr., Chicago.
Tan,—(see Tanoak)				
Turkey, <i>Quercus laevis</i>	7'9"	54'	55'	Maxwell's Point, Harford County, Maryland. F. W. Besley, Laurel.
Water, <i>Quercus nigra</i>	16'10"	83'	100'	Hillsboro, Georgia. Eugene Cypert, Jr., Paris, Tennessee.
White, <i>Quercus alba</i>	27'8"	95'	165'	Wye Mills, Maryland. F. W. Besley, Laurel.
California White, or Valley, <i>Quercus lobata</i>	27'9"	125'	---	Near Middletown, Lake County, California. Woodbridge Metcalf, Berkeley.
Oregon White, <i>Quercus garryana</i>	25'6"	120'	---	Near Mendocino National Forest, California. H. G. Abbott, Orono, Maine.
Swamp White, <i>Quercus bicolor</i>	16'7"	82'	86'	Near Hanover, Pennsylvania. C. N. Myers, Hanover.
Willow, <i>Quercus phellos</i>	21'2"	118'	106'	Queenstown, Eastern Shore, Maryland. S. Glidden Baldwin, Danville, Illinois, and F. W. Besley, Laurel.
OSAGEORANGE				
Osageorange, <i>Maclura pomifera</i>	19'4"	66'	70'	Near Carmichael, Maryland. F. W. Besley, Laurel.
PALM—(see Royalpalm)				
PAWPAW				
Common, <i>Asimina triloba</i>	4'9"	25'	32'	Lancaster, Pennsylvania. John D. Kendig, Manheim.
PECAN				
Pecan, <i>Carya illinoensis</i>	21'4"	135'	145'	Assumption Parish, Louisiana. Sam Mims, Baton Rouge.
PERSIMMON				
Common, <i>Diospyros virginiana</i>	13'1½"	80'	73'6"	Near Johnson, Indiana. W. B. Ward, Lafayette.

Species	Circumference at 4½ feet	Height	Spread	Location of Tree and Nominator
PINE				
Bristlecone, <i>Pinus aristata</i>	37'7"	40'	45'	Inyo National Forest, California. A. E. Noren, Bigpine.
Coulter, <i>Pinus coulteri</i>	17'	144'	40'	Angeles National Forest, California. Will H. Thrall, Alhambra.
Digger, <i>Pinus sabiniana</i>	14'6½"	137'	60'	Near Millville, California. John Callaghan, Redding.
Jack, <i>Pinus banksiana</i>	5'7"	70'	30'	Near Village of Lake Delton, Wisconsin. Harold F. Williams and Walter E. Scott, Madison.
Jeffrey, <i>Pinus jeffreyi</i>	14'10"	157'	25'	Angeles National Forest, California. Will H. Thrall, Alhambra.
Knobcone, <i>Pinus attenuata</i>	9'1"	---	---	Rogue River National Forest, Oregon. Oliver V. Matthews, Salem.
Limber, <i>Pinus flexilis</i>	24'5"	44'	50'	Cache National Forest, Utah. Wilford D. Porter, Logan.
Loblolly, <i>Pinus taeda</i>	16'6"	128'	64'	Near Ammon, Virginia. Ralph G. Turner, Amelia.
Lodgepole, <i>Pinus contorta latifolia</i>	19'	106'	---	Sierra National Forest, California. Harold S. Coons, Northfork.
Longleaf, <i>Pinus palustris</i>	10'9"	113'	40'	Autauga County, Alabama. R. M. Loughridge, Selma.
Monterey, <i>Pinus radiata</i>	13'7"	165'	75'	Near Napa, California. Woodbridge Metcalf, Berkeley.
Pinyon				
Colorado Pinyon, <i>Pinus cembroides edulis</i>	11'3"	33'	43'6"	La Sal National Forest, Utah. Owen DeSpain, Moab.
Pitch, <i>Pinus rigida</i>	6'4"	72'	36'	Near Bowie, Maryland. F. W. Besley, Laurel.
Pond, <i>Pinus rigida serotina</i>	7'5"	70'	48'	Near Laurel, Maryland. F. W. Besley, Laurel.
Ponderosa, <i>Pinus ponderosa</i>	27'1"	162'	---	Near Lapine, Oregon. Donald F. McKay, Tacoma, Washington.
Red, or Norway, <i>Pinus resinosa</i>	8'10"	98'	34'	Stephenson, Wisconsin. W. E. Scott, Madison.
Shore, or Coast, <i>Pinus contorta</i>	9'1"	---	---	Curry County, Oregon. Oliver V. Matthews, Salem.
Shortleaf, <i>Pinus echinata</i>	10'7"	146'	60'	Morganton, North Carolina. A. H. Maxwell, Morganton.
Spruce, <i>Pinus glabra</i>	13'6"	105'	60'	Near Brookhaven, Mississippi. Monty Payne, State College.
Sugar, <i>Pinus lambertiana</i>	32'8"	220'	61'	Stanislaus National Forest, California. J. R. Hall, Sonoma.
Table Mountain, <i>Pinus pungens</i>	6'10"	---	---	Chattahoochee National Forest, Georgia. C. A. Rowland, Jr., Gainesville.
Torrey, <i>Pinus torreyana</i>	17'	100'	118'	Carpenteria, California. Edward H. Scanlon, Santa Monica.
Virginia, <i>Pinus virginiana</i>	6'10"	72'	43'	Near Malcolm, Maryland. F. W. Besley, Laurel.
White				
Eastern White, <i>Pinus strobus</i>	17'2"	140'	56'	Near Newald, Wisconsin. Jacque D. Valier, Milwaukee.
Western White, <i>Pinus monticola</i>	21'3"	219'	36'	Near Elk River, Idaho. A. B. Curtis, Boise.
Whitebark, <i>Pinus albicaulis</i>	19'	85'	60'	Grand Teton National Park, Wyoming. Charles J. Smith, Moose.
PLANETREE: SYCAMORE				
American, <i>Platanus occidentalis</i>	25'10"	114'	79'	Wakefield, Maryland. Karl E. Pfeiffer, Annapolis.
California, <i>Platanus racemosa</i>	27'	116'	158'	Near Santa Barbara, California. Maunsell Van Rensselaer, Saratoga.
PLUM				
American, or Wild, <i>Prunus americana</i>	5'	29'	33'	Near Steyer, Maryland. Karl E. Pfeiffer, Annapolis.
Inch, <i>Prunus lanata</i>	1'11"	26'	28'	Ouachita National Forest, Arkansas. Kendall Laughlin, Chicago, Illinois.
POISONSUMAC				
<i>Toxicodendron vernix</i>	1'9"	17'	19'	Dune Acres, Indiana. Kendall Laughlin, Chicago, Illinois.

Species	Circumference at 4½ feet	Height	Spread	Location of Tree and Nominator
POPLAR; COTTONWOOD				
Balm-of-Gilead P., <i>Populus candicans</i>	8'3"	88'	48'	Houghton, Michigan. William P. Nicholls, Houghton.
Eastern P., <i>Populus deltoides</i>	30'	90'	---	Fort Kearney, Nebraska. V. W. Binderup, Minden.
Gray P., <i>Populus canescens</i>	21'3"	95'	90'	Near Florida, Ohio. O. E. Files, Toledo.
Narrowleaf P., <i>Populus angustifolia</i>	6'	55'	25'	Little Cottonwood Creek, Pueblo Mountains, Oregon. Oliver V. Matthews, Salem.
Pacific P., or Northern Black C., <i>Populus trichocarpa hastata</i>	25'	---	---	Near Corvallis, Oregon. T. J. Starker, Corvallis.
Plains P. or C., <i>Populus sargentii</i>	29'8"	55'	70'	Near Thermopolis, Wyoming. O. F. Ludtke, Thermopolis.
Southern P., <i>Populus deltoides missouriensis</i>	21'7"	124'	115'	Near Geneva, New York. O. E. Files, Toledo, Ohio.
Swamp P. or C., <i>Populus heterophylla</i>	5'7"	74'	34'	Big Oak Tree State Park, Missouri. Kendall Laughlin, Chicago, Illinois.
White P., or Silver P., <i>Populus alba</i>	15'5"	74'	67'	Oxford, Maryland. F. W. Besley, Laurel.
Yellow P.—(see Tuliptree)				
POSSUMHAW				
Possumhaw, <i>Ilex decidua</i>	1'1"	20'	27'	Big Oak Tree State Park, Missouri. Kendall Laughlin, Chicago, Illinois.
PRICKLYASH				
Common, <i>Zanthoxylum americanum</i>	1'4" (base)	30'	---	Homochitto National Forest, Mississippi. Herbert P. Rice, Rolling Fork.
Herculesclub, <i>Zanthoxylum clavaherculis</i>	4'4" (base)	50'	---	Homochitto National Forest, Mississippi. Herbert P. Rice, Rolling Fork.
REDBUD				
Eastern, <i>Cercis canadensis</i>	8' @2'	---	40'	Near North Kingsfield, Ohio. Newton G. Armstrong, Cleveland.
REDCEDAR				
Eastern, <i>Juniperus virginiana</i>	13'4"	62'	42'	Cumberland, Queen Anne County, Maryland. F. W. Besley, Laurel, and S. Glidden Baldwin, Danville, Illinois.
REDWOOD (see also Sequoia)				
Redwood, <i>Sequoia sempervirens</i>	65'9" @6'	300'	---	Big Tree Park on Redwood Highway, California. John A. McGregor, San Francisco.
RHODODENDRON				
Coast, <i>Rhododendron macrophyllum</i>	2'2"	26'	22'	Siuslaw National Forest, Oregon. Oliver V. Matthews, Salem.
ROYALPALM				
Cuban, <i>Roystonea regia</i>	4'9"	100'	12'	Collier Seminole State Park, Naples, Florida. Wilbur F. Smith, South Norwalk, Connecticut.
SASSAFRAS				
Common, <i>sassafras albidum</i>	16'	88'6"	68'	Owensboro, Kentucky. Mrs. O. W. Rash, Owensboro.
Silky, <i>Sassafras albidum molle</i>	15'4"	65'	47'	Near Mt. Nebo, Lancaster County, Pennsylvania. Ray Brooks, Landisville.
SEQUOIA (see also Redwood)				
Giant, <i>Sequoia gigantea</i>	101'6" @ base	272'	90'	Sequoia National Park, California. Miss Isabelle F. Story, Washington, D. C.
SERVICEBERRY				
Pacific, <i>Amelanchier florida</i>	2'9"	---	---	Near Lyons, Oregon. Oliver V. Matthews, Salem.
Shadblow, <i>Amelanchier canadensis</i>	7'1"	54'	40'	Near Ithaca, New York. P. F. Allan, Ithaca.
SILVERBELL				
Mountain, <i>Halesia monticola</i>	11'9"	---	---	Great Smoky Mountains National Park, Tennessee. Stanley A. Cain, Knoxville.
SOAPBERRY				
Western, <i>Sapindus drummondii</i>	5'6"	51'	46'	Carnegie, Oklahoma. Floyd Clay, Alfalfa.



From left to right, leaf of the tuliptree, needles of white pine, and an acorn and leaves of oak

SOURWOOD

Sourwood, *Oxydendrum arboreum*

7'4"

65'

35'

Pisgah National Forest, North Carolina. James Hutchins, Burnsville.

SPRUCE

Brewer, *Picea breweriana*

12'2"

Near Miller Lake, Oregon. Oliver V. Matthews, Salem.

Colorado or Blue, *Picea pungens*

11'9"

123'

Gunnison National Forest, Colorado. Fred R. Johnson, Denver.

Engelmann, *Picea engelmanni*

19'11"

104'

30'

Cache National Forest, Idaho. Jay B. Hann, Paris.

Red, *Picea rubens*

14'1"

75'

Great Smoky Mountains National Park, North Carolina. Verne Rhoades, Asheville.

Sitka, *Picea sitchensis*

51'6"

180'

50'

Olympic National Park, Washington. Robert L. Wood, Poulsbo.

White, *Picea glauca*

10'1"

75'

42'

Near Herbster, Wisconsin. Charles E. Rieck, Hayward.

SUMAC

Flameleaf, *Rhus copallina*

11"

25'

15'

Dunes State Park, Indiana. Kendall Laughlin, Chicago, Illinois.

Poison—(see Poisonsumac)

Smooth, *Rhus glabra*

2'6"

45'

Homochitto National Forest, Mississippi. Herbert P. Rice, Rolling Fork.

Staghorn, *Rhus typhina*

@ base
1'7"

36'

17'

Dunes State Park, Indiana. Kendall Laughlin, Chicago, Illinois.

SWAMP-PRIVET—(see Forestiera)

SWEETGUM

American, *Liquidambar styraciflua*

16'6"

112'

71'

New Madrid, Missouri. Kendall Laughlin, Chicago, Illinois, and R. E. McDermott, Columbia, Missouri.

SYCAMORE—(see Planetree)

TAMARACK—(see Larch)

TAMARIND

Wild—(see Lysiloma)

TANOAK

Tanoak, *Lithocarpus densiflorus*

24'1"

80'

84'

Near Cazadero, Sonoma County, California. Arnold F. Wallen, Oakland.

TORREYA

California, or California-nutmeg
Torreya californica

14'10"

141'

39'

Near Mendocino, California. Edward Simons, San Francisco.

TULIPTREE; YELLOW POPULAR

Liriodendron tulipifera

26'6"

83'

98'

Annapolis, Maryland. F. W. Besley, Laurel.

TUPELO

Black T., or Blackgum, *Nyssa sylvatica*

13'3"

85'

83'

Sandy Spring, Maryland. F. W. Besley, Laurel.

Water, *Nyssa aquatica*

18'1"

110'

65'

Near Camden, South Carolina. Henry Savage, Jr., Camden.

Species	Circumference at 4½ feet	Height	Spread	Location of Tree and Nominator
VIBURNUM				
Blackhaw, <i>Viburnum prunifolium</i>	1'9"	20'	18'10"	Glen Mills, Pennsylvania. S. Glidden Baldwin, Danville, Illinois, and T. V. Palmer, Concordville.
Rusty Blackhaw, <i>Viburnum rufidulum</i>	1'11"	23'	21'	Big Oak Tree State Park, Missouri. Kendall Laughlin, Chicago, Illinois.
Nannyberry, <i>Viburnum lentago</i>	5'	22'	35'	State College, Pennsylvania. H. H. Arnold, State College.
WAHOO				
Eastern W. or Eastern Burningbush, <i>Euonymus atropurpureus</i>	1'2"	12'	5'	Turkey Run State Park, Indiana. Kendall Laughlin, Chicago, Illinois.
WALNUT				
Black				
Arizona Black, <i>Juglans major</i>	9'10"	55'	52'	Near Albert, Oklahoma. Floyd Clay, Alfalfa.
Eastern Black, <i>Juglans nigra</i>	20'3"	108'	128'	Anne Arundel County, Maryland. F. W. Besley, Laurel.
Hinds Black, <i>Juglans hindsii</i>	18'7"	95'	---	Near Arbuckle, California. Woodbridge Metcalf, Berkeley.
White—(see Butternut)				
WATERELM				
Waterelm, <i>Planera aquatica</i>	2'1"	31'	30'	Big Oak Tree State Park, Missouri. Kendall Laughlin, Chicago, Illinois.
WAXMYRTLE				
Pacific, or California, <i>Myrica californica</i>	3'11"	---	---	Near Annapolis, California. Richard H. May, Berkeley.
WILLOW				
Black, <i>Salix nigra</i>	19'7"	85'	50'	Near Woodville, Ohio. O. E. Files, Toledo.
Brittle, <i>Salix fragilis</i>	18'7"	80'	70'	Old Westbury, L. I., New York, George H. Peters, Freeport.
Coastalplain, Ward, <i>Salix longipes wardii</i>	2'11"	18'	25'	Glenwood, Arkansas. Kendall Laughlin, Chicago, Illinois.
Hooker, <i>Salix hookeriana</i>	9'10"	42'	40'	Near Cannon Beach, Oregon. George M. Hansen, Portland.
Peachleaf, <i>Salix amygdaloides</i>	6'2"	75'	47'	Black Partridge Woods, Cook County, Illinois. Kendall Laughlin, Chicago.
Pussy, <i>Salix discolor latifolia</i>	3'1"	30'	26'	Chechupinqua Woods, Cook County, Illinois. Kendall Laughlin, Chicago.
Sandbar, <i>Salix interior</i>	1'1"	24'	14'	Schiller Woods, Cook County, Illinois. Kendall Laughlin, Chicago.
Scouler, or Mountain, <i>Salix scouleriana</i>	9'5"	---	---	Silver Creek Falls State Park, Oregon. Oliver V. Matthews, Salem.
White, <i>Salix alba</i>	23'6"	85'	75'	Near Winona, Ohio. F. Merrick Semans, North Jackson.
Yellowstem White, <i>Salix alba vitellina</i>	8'11"	43'	34'	Chechupinqua Woods, Cook County, Illinois. Kendall Laughlin, Chicago.
WINTERBERRY				
Mountain, <i>Ilex montana</i>	1'2"	18'	8'	Great Smoky Mountains National Park, Tennessee. S. Glidden Baldwin, Danville, Illinois.
WITCHHAZEL				
Common, <i>Hamamelis virginiana</i>	2'1"	25'	25'	Windom, North Carolina. James Hutchins, Windom.
YELLOWWOOD				
American, <i>Cladrastis lutea</i>	7'10"	48'	47'	Relay, Maryland. F. W. Besley, Laurel.
YEW				
Pacific, <i>Taxus brevifolia</i>	12'7"	---	---	Near Cherry Grove, Oregon. Oliver V. Matthews, Salem.
YUCCA				
Joshuatree, <i>Yucca brevifolia</i>	11'	41'6"	36'	Near Lancaster, California. San Antonio Club, Alhambra.
x Hybrid.				



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Dragon Fire Pumps are designed with the firefighter in mind. The special harness makes it easy to swing the pump into place so that it rides high on the back where it can't throw the fireman off balance or interfere with walking or climbing.

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The First Eighty Years

(From page 19)

that "the regulatory power should be used by the states as rapidly as public opinion is sufficiently favorable to promise its effective enforcement to require that all forest lands not to be converted to some other use be so handled as to maintain them in a productive condition." This position has been consistently maintained.

One means to which A.F.A. has always looked hopefully for the promotion of state and private forestry is through the establishment of state forestry associations. At the Montreal meeting in 1882 it was "Resolved that the organization of Local Forestry Associations be encouraged by this Congress." The call for the 1885 meeting stated that one of the objectives of the Congress was to promote and assist the formation of local state forestry associations. In 1902 the Association authorized and directed its Vice-Presidents "to appoint committees in their respective states for the purpose of organizing forestry associations. . . ."

As a means of facilitating the exchange of ideas and experiences between state associations, A.F.A. was instrumental in 1949 in organizing the Council of State Forestry Association Executives, which has met regularly since that date. In 1948 the Association entered into a cooperative agreement with the Ohio Forestry Association under which it provided guidance, planning, and financial assistance in developing both a short-range and a long-range forestry program in the state.

Forest Protection

Protection of forests from fire, insects, and disease has always been a cardinal policy of A.F.A. Typical of its attitude is a resolution adopted in 1895: "That the question of dealing with forest fires is still the first and most important one to be settled in nearly all the states of the Union before rational forestry methods can become practicable."

The annual meeting in 1909 was styled an "Anti-Forest Fire Congress." Professor H. H. Chapman, in behalf of a committee of which he was a member, presented a detailed list of activities required in the prevention and control of forest fires, which was adopted by the Association as its platform.

When the menace of the chestnut

blight became apparent, A.F.A. at its annual meeting in 1912 urged the taking of vigorous action, with adequate appropriations, to bring it under control. The next year the Association urged liberal federal and state appropriations for control of the white pine blister rust, and also the continuation of financial cooperation with the states in fire protection under the Weeks Law. A few years later it proposed a national quarantine on plants, trees, and nursery stock, and in 1922 it urged Congress to give serious consideration to the broad problem of insect control and to appropriate adequate funds for this purpose. From 1933 on, the Association played a prominent part in obtaining appropriations to fight the Dutch elm disease.

The Association's most ambitious and most successful undertaking in the field of forest-fire control was the Southern Forestry Educational Project. The primary objective of the project was to create an "enlightened public sentiment in respect to the evil of forest fire," with the ultimate objective of obtaining public action. A special fund of \$186,000 was raised for the conduct of the project, which was initiated in September, 1928. For the next three years the "Dixie Crusaders" with several trucks, exhibits, and moving pictures showing local conditions toured the states of Georgia, Florida, Mississippi, and South Carolina portraying with telling effect the evils of unrestrained forest fires.

Real progress in fire control in the South dates largely from this venture, which demonstrated that the only permanent solution of the fire problem lies in the education of the people, and particularly of the children. Recognizing the continuing seriousness of the problem, A.F.A. and the Louisiana Forestry Association joined with the organized forestry interests throughout the region in staging a Southern Forest Fire Prevention Conference in New Orleans, La., in April, 1956. The Conference, which has the formal endorsement of the Governors of the Southern States, will stress the devastating effects of wild-fires upon the economy of the South and will arouse a militant public opinion for their control. It constitutes an appropriate and effective

follow-up of the pioneer efforts of the "Dixie Crusaders."

As the relative damage by insects and diseases increased, so did the A.F.A.'s interest in their control. It was influential in obtaining passage of the Forest Pest Control Act of 1947, and in 1950 it organized a Forest Pest Advisory Committee. That committee joined with the Association of State Foresters in 1951 in asking the Secretary of Agriculture to appoint a national forest insect and disease advisory committee which would serve as a nucleus around which cooperative action could be rallied throughout the country. Among other activities it has urged the extension of fundamental and coordinated research and the development of a nationwide system of reporting on current insect and disease conditions and outbreaks.

Both the 1947 and the 1954 Programs for American Forestry stressed strongly the need for intensified efforts by all agencies to control forest fires, insects, and diseases as basic to long-range forest management.

Education and Research

Crystallization of public opinion through education has always been one of the main objectives of the Association. In 1894, for example, it urged "national legislation looking toward the establishment of courses of instruction in forestry in such institutions as are benefited by aid from the public treasury, and the establishment of a National Forestry School in some part of the national domain." It also considered informally the desirability of establishing a postgraduate school of forestry in connection with the Division of Forestry in the Department of Agriculture. A bill for this purpose which was later introduced in Congress got nowhere, but the proposal was the precursor of the present highly successful graduate school in the Department.

Greater attention to both teaching and research at land-grant colleges has been urged repeatedly by the Association. The 1954 Program for American Forestry recommended the general strengthening of professional, subprofessional, and vocational training in forestry by educational institutions.

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THE AMERICAN FORESTRY ASSOCIATION

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the need for accurate information on the forest resources of the country. The nation-wide forest survey which was finally authorized by Congress in 1928 was foreshadowed as early as 1895, when the Association resolved that "knowledge as to the extent and condition of our forest resources" is essential and should be acquired. In 1898 it urged Congress to appropriate funds to enable the Division of Forestry to gather statistical information of a reliable character on the kinds and quantities of timber in all the states and territories. Again, in 1908, it recommended the taking of a timber census of the United States.

In 1942, A.F.A. decided that it would itself undertake a critical and impartial appraisal of the forest situation, with particular reference to its changing status under war and post-war conditions. This ambitious undertaking was financed by cash contributions and services supplied by interested individuals and agencies. The results of the appraisal, which was actually started in January, 1944, and continued for somewhat more than two years, in close cooperation with the concurrent Forest Service "reappraisal," were published in the September, 1946, issue of AMERICAN FORESTS.

Publications and Special Projects

Undoubtedly the most important single activity of the Association has been the publication of its magazine. In 1892, "Forest Leaves," the official organ of the Pennsylvania Forestry Association, became also the official organ of A.F.A. Then on January 1, 1898, it took over publication of "The Forester," which had been edited and published since January, 1895, by John Gifford—first as the official organ of the South Jersey Woodmen's Association and later as the official organ of the New Jersey Forestry Association. From that day to this, the magazine, under various names, has been the mouthpiece of The American Forestry Association and the chief instrument for carrying on its educational program.

In 1910, the Directors reported that they had perfected plans for cooperation with the National Conservation Association which had been organized the previous year, and that the Association would go forward with its work along the lines which it had followed for many years, "publishing a magazine that will be a great educational force and a reliable authority in its field, striving for legislation that will promote the preservation and cultiva-

tion and wise utilization of our forests, together with all allied work for the conservation of natural resources, so much of which so far as soils and waters are concerned, comes back to the forest ultimately."

The next year (1911) the National Conservation Association discontinued publication of its magazine "Conservation" because it felt that it had more important work to do, and turned current subscriptions over to AMERICAN FORESTS.

It has also undertaken many special projects in a wide variety of fields. Three projects of special importance were the holding of national forest congresses in 1905, 1946, and 1953. The purpose of the 1905 congress, as stated in the official call, was "to establish a broader understanding of the forest in its relation to the great industries depending upon it; to advance the conservative use of forest resources for both the present and future need of these industries; to stimulate and unite all efforts to perpetuate the forest as a permanent resource of the nation." The Congress was a noteworthy affair which probably deserved the encomium bestowed upon it in the preface to the proceedings, as "not only the most important meeting ever devoted to forestry in the United States, but one of the most influential gatherings that has given its attention to an economic subject. It is not too much to say that from the date of this Congress forestry has come to have a new meaning to the American people."

Following the completion of the Forest Resource Appraisal, the Association called an American Forest Congress to be held at Washington, D. C., October 8 to 11, 1946. Its purpose was "to dramatize to the American people the condition of their forest resources after four years of war, to bring together representatives of government, industry, agriculture, labor and the public for joint consideration of the forest situation, and to enlist the aid and support of all citizens interested in the preservation and use of forests in formulating a national program of forestry." The discussions centered around a Program for American Forestry which had been prepared the preceding July by the "Higgins Lake Committee" consisting of nineteen members drawn from all major fields of forest interests. This program was revised by the Directors in the light of the discussions at the Congress and early the next year was approved

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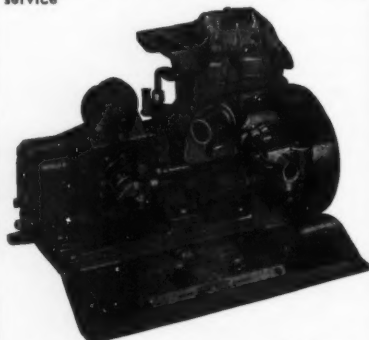


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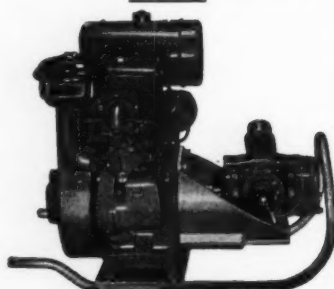
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almost unanimously in a referendum vote by the membership of the Association.

Rapidly changing conditions led the Association to call another American Forest Congress which met at Washington, D. C., October 29 to 31, 1953. The new Program for American Forestry presented for the consideration of the Congress was prepared by a second Higgins Lake Committee, with much the same membership as its predecessor. The program in slightly revised form was submitted to and approved by the membership of A.F.A. in the spring of 1954. It stressed three immediate goals for national policy:

"1. To meet the essentials of forest protection. . . .

"2. To improve the national timber crop in volume and quality to a degree sufficient to wipe out all deficits and build up a reserve. . . .

"3. To obtain the maximum of economic and social services from our forests by realistic application of the principle of multiple use in their management."

The program concluded with the statement that "The American Forestry Association accepts responsibility for publicizing and obtaining general acceptance of this program and for advancing its recommendations nation-wide by state and national actions as they appear practicable."

Related Fields

As time has passed, A.F.A. has found itself increasingly interested and active in fields related to forestry. Thus, in 1908, the directors called attention "to the broadening scope of the forestry movement, to the recognition of the fact that it includes the questions of irrigation, drainage, inland waterways, and power conservation." In 1911 they stated that "the center and source of the conservation movement was forestry. . . . Therefore we conceive the field of our Association to be vital and lasting and so broad, many-sided and far-reaching as to amply justify the existence of an association devoted to the advancement of scientific forestry for the best utilization of our forest lands for all time."

A statement of policy adopted by the Directors in 1942 declared that "the Association should concentrate its activities primarily in the fields of forestry and range management, while at the same time maintaining a sympathetic interest in other phases of conservation and land use." As a result of this attitude A.F.A. has frequently supported programs and legislation dealing with

such subjects as range management, soil conservation, outdoor recreation, wildlife management, water pollution, control of erosion and floods, and river-basin development.

In recent years the Association has supported strongly the principle of multiple-use land management. The 1947 Program for American Forestry advocated "full recognition of wildlife, watershed, recreational and other non-timber values in the acquisition and management of forest lands by public agencies;" and the 1954 Program dealt specifically and in considerable detail with these values.

Foresters and the Association

Numerically foresters have never constituted an important part of The American Forestry Association. As a popular organization, its membership has naturally been made up chiefly of persons with a strong but non-professional interest in forestry, and with a keen perception of its significance to the welfare of the nation. It is, however, surprising that a larger percentage of professional foresters, whose appreciation of that significance must be at least equally keen, have not seen fit to join an organization which has demonstrated its effectiveness in mobilizing public opinion and in promoting the ideals for which the profession stands.

In spite of their small numbers, foresters have always played an important part in determining the policies of the Association. Among those who were particularly active in its early years were B. E. Fernow, Gifford Pinchot, Henry S. Graves, Filibert Roth, W. L. Hall, and P. W. Ayres. At no time in its history has A.F.A. been without at least one, and usually several, foresters on its Board of Directors. For the last forty years the number has usually run from four to six. W. B. Greeley apparently holds the record for length of service, with thirty-four years to his credit.

Only two foresters have served as President of the Association—Henry S. Graves from 1923 to 1924 and 1934 to 1936, and Don P. Johnston since 1952. The general policy has been to select outstanding laymen for this important position. Among the incumbents have been a commissioner of agriculture, two secretaries of agriculture, three governors of states, an ambassador, a university president, and many other eminent men.

In 1908, Secretary of Agriculture

James Wilson, who had been President of the Association for ten years, declined to serve further in that capacity on the ground that it should be completely independent of the federal government. Since then, only three men (W. B. Greeley, E. L. Demmon and C. A. Connaughton) have been members of the Board while in federal service. Except for this discrimination against the federal government, nominating committees have attempted to include in the Board representatives of state agencies, educational institutions, timber growers and manufacturers, and the various branches of forestry and other conservation activities with which the Association deals, together with prominent and well-informed lay citizens who represent the general public.

The first professional forester to be employed by A.F.A. was Ovid Butler, who on May 1, 1922, assumed the position of Forester, with the duty of serving as the expert of the Association in its technical work and as its representative in its public forestry activities. On January 1, 1923, he became Secretary (later Executive Director) of the Association and Editor of its magazine, which positions he held until his retirement on March 31, 1948. It is interesting to note that his successors as Executive Director (J. F. Kaylor, S. L. Frost, and Lowell Besley) have all been foresters.

Conclusion

The record shows that for eighty years The American Forestry Association has steadfastly stuck to its self-assumed task of making forestry in the United States a reality—from 1875, when it was a voice crying in the wilderness, to 1955, when hundreds of organizations, public and private, are seeking the same end. Its goal was well stated by Henry S. Graves in 1923: "To carry forward the movement of forestry to definite practical achievement. . . . I have accepted the position of President of The American Forestry Association because I believe that this is the national organization that can most effectively carry forward this movement."

Dean Graves added that there are three ways in which the Association can achieve its purposes. These are by serving as a great educational agency, by organizing all the educational forces of the country, and by taking leadership in matters of public policy. In all of these ways the Association has sought, with sub-

stantial success, and always in full cooperation with other agencies seeking the same ends, to create widespread public understanding and support of forestry and to obtain the passage of constructive forest legislation.

The Association has been criticized at different times, and occasionally at the same time, as being under the control of some special interest such as the Forest Service or the "timber barons." These opposing criticisms make it evident both that the Association has pursued a middle course and that it has stuck to its convictions. The very fact

that its directors are deliberately selected to represent a wide variety of interests means that it will not be controlled by the extremists of any stripe. If this policy has elements of weakness, it has even more elements of strength, since it enables the Association to represent and to command the support of the American people as a whole rather than of any single faction.

Dr. Fernow in 1898 summed up the contribution of The American Forestry Association to American forestry in these few words: "No one man or set of men can exert a controlling influence in any line, but



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in forestry this Association has been the prime mover." Since that time many other organizations have played prominent and often decisive parts in the advancement of forestry in the United States. As the movement has grown, it has become increasingly difficult to credit successive achievements to any single agency, group, or individual. This much, however, is clear—that The American Forestry Association has consistently exercised constructive leadership in the educational and legislative fields. If its future record maintains the standard of the first eighty years, the nation will continue to owe it much.

Wildlife Conference

(From page 4)

was Dr. Ira Gabrielson, president of the Wildlife Management Institute, who said flatly that "it is not possible to explore for oil or gas, or to develop oil or gas fields, without doing damage to wildlife and wildlife habitat."

Another point of view was presented by John A. Biggs, director of the Washington State Department of Game, at the meetings conducted by the National Wildlife Federation. "You as sportsmen, and we as wildlife administrators, have long espoused the principle of multiple land use," Mr. Biggs said. "We also agree that wildlife lands are for wildlife primarily, and other purposes must be secondary. In the western states we have found that timber is often a valuable by-product of our state-owned wildlife lands. We frequently find that its harvest does not diminish the wildlife values of the land, and often provides us with funds which would not otherwise be available to us for not only the development of lands, we presently own, but for the acquisition of new ones. In actuality, is the removal of oil and gas from federal lands much different than this? If it is done selectively, and only in those cases where there is positive assurance that we will not impair wildlife values, and if the proceeds can be used for improvements and further land acquisition, is this not good business?"

Many sportsmen and technical men alike disagreed with Mr. Biggs on this on the basis that it is wrong to "hang a dollar sign on all phases of conservation activity." Among these was C. R. Gutermuth, vice

president of the Wildlife Management Institute, who challenged statements by both Mr. Biggs and Mr. Farley at the federation meeting. This was further spelled out by Dr. Gabrielson in his keynote address in which he said that in years past Interior Secretaries had refused to yield to outside pressures to open the refuges. Now, that situation is reversed, Dr. Gabrielson said. "During the time that Secretary McKay's famous 'stop order' was in effect from August 1953 to December 1955, several hundred leases were issued, while only 11 were issued from 1920 to August, 1953. It appears that many of these were issued without the knowledge of the Secretary, and the evidence given before the House Merchant Marine and Fisheries Committee in recent hearings indicates that many of them were issued without the knowledge of the Fish and Wildlife Service."

Dr. Gabrielson further scored the fact that "Interior has gone steadily ahead in the process of changing the Fish and Wildlife Service from a scientific career service into a political agency. There are now four Schedule C (political) appointments to the top echelon in the Fish and Wildlife Service, and the morale in the organization continues to be low."

The new Interior policy and the large number of oil and gas leases that have been issued are "another long backward step in wildlife conservation," Dr. Gabrielson said. "The wholesale violation of the Secretary's famous 'stop order' makes one skeptical as to how much attention will be given to the present regulations which do give the Fish and Wildlife Service some voice in the supervision of leases. They have nothing to say about issuing them. One thing is certain. The present regulations make it possible for the Department to issue the leases and then expect the career employees in the Fish and Wildlife Service to find ways to minimize the damage to wildlife values and to justify the leases."

Mr. Biggs, who did not seem to be very alarmed about the leasing program, had this to say. "The significant point of all this is that of the entire refuge system, exceeding 17 million acres, only a little more than three million acres are dedicated to, and managed solely for migratory waterfowl. While there undoubtedly are very good reasons for the retention and management by the Fish and Wildlife Service of some of these miscellaneous lands, it is undeniable,

if one is to view the refuge system in a practical fashion, stripped of its esthetic and sentimental values, that it can only be concluded that the Service has, in many instances, been burdened with the management of lands which for the good of all might very well be better used by someone else."

At this point Mr. Biggs scored recent agitation concerning the transfer or disposal of some of these lands that has resulted in a bill being introduced in Congress. The bill would restrict the powers of the Sec-

retary in this respect and would require Congressional approval of any such transfers or disposals.

"We will unanimously and wholeheartedly agree that every reasonable safeguard should be provided for these lands, but need it be this inflexible?" Mr. Biggs asked. There are several good reasons why some of this land could be disposed of, he continued. First, technicians know a lot more about waterfowl and their requirements than was the case previously and they also know more about what should constitute a pro-

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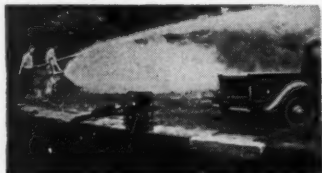
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ductive and workable overall system of migratory refuges. At this point Mr. Biggs inferred that some wildlife specialists are trying to do a job with "machinery" that may have been good 25 years ago but which is now out-moded. Secondly, he said that by and large the state fish and game departments have now grown in stature and are prepared to do a management job in partnership with the federal agency. These developments lead him to conclude that "the time is at hand for a comprehensive analysis of the present day refuge system" to make sure that wildlife is being cared for in terms of today's needs and conditions.

Another bill that appeared to be in the process of "being born" at the conference was one that would create a Natural Wilderness System in the national parks, forests and wildlife refuges. As outlined at a meeting of the National Resources Council of America, the proposal as espoused by wilderness and park groups "would affirm the national policy to preserve such a wilderness system, should define the proper uses of areas within the system and should provide for the protection of the areas from inconsistent uses."

Elated by their resounding victories in scotching Echo Park Dam in Dinosaur National Monument and the Panther Mountain Dam proposal in New York's Adirondack Preserve, advocates of the proposed legislation are of the opinion the public may now be "mature" enough to support a wilderness preserve system that would include over 70 wilderness areas in national forests. As proposed at New Orleans, the bill

would not interfere with present existing uses in the areas involved—for example some salvage is now being carried on in national forest wilderness areas. The bill would create a Wilderness Preservation Commission, modeled after the Migratory Bird Commission, that would assist in the establishment of the system and allocation of additional areas as time went on.

While not completely spelled out at New Orleans, the wilderness preserve principles were endorsed by Dr. Gabrielson. Recalling that it was the Forest Service which first developed the wilderness principle, Henry Clepper, of the Society of American Foresters, urged that wilderness lovers in their enthusiasm re-examine their position in terms of whether it was "shortsighted" or not. When a representative of The American Forestry Association asked if the proposals would not be regarded as another "vested rights" measure to further tie the hands of national forest administration, supporters of the bill said the public, unlike grazers, lumbermen, or miners, was not a "vested right." When asked if the measure might not provide an avenue over which other special interest groups might travel with equal facility, supporters of the bill indicated they could effectively block "selfish interest groups."

Cheered by an invitation from Rep. Clair Engle, of California, to unite and press their plan for safeguarding wilderness areas, the group indicated it would press ahead on the measure. The group denied that the measure was an effort to "tie the hands" of the Forest Service when Mr. Clepper reminded them that the "Forest Service was the best friend wilderness lovers ever had." However, Prof. Shirley Allen, of the University of Michigan, said that he doubted if the Forest Service "man for man down the echelon" was "really sold" on the wilderness concept. This was disputed by a representative of the Forest Service who pointed to past gains in this respect and programs now going on. The bill's supporters indicated they would seek consultation with agencies involved before introducing the measure. As of last month, Forest Service Chief Richard E. McArdle had not seen the proposed bill and denied reports at New Orleans that he was in favor of it.

Following the meeting, AFA board members said they planned to give the proposal careful study after first consulting with agencies involved.



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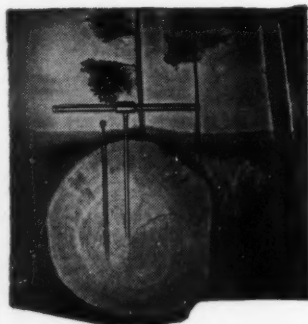
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Forestry also occupied a star position in this big conference, that is an attempt to look at the whole conservation picture in terms of new trends and developments. In view of the fact that some conservationists in New Orleans were veering toward the Ellender Farm Bill "because it contained better conservation features," Assistant Secretary of Agriculture E. L. Peterson scored the whole concept of high-price supports for agriculture, suggesting that it was ridiculous to uphold such supports on one hand and activate a Soil Bank Program on the other when the goal involved was the reduction of huge and costly surpluses. William A. Kluender, director of the agricultural program for the Chicago and North Western Railway System, Chicago, asked "Isn't this an excellent time to specialize and diversify (in the agricultural field)? Emphasis on trees as a potential crop is long overdue. One third of our forest area is on farm woodlands. Timber crops can provide much needed cash revenue to the farm and simultaneously contribute real benefits toward the control of water and wind erosion."

Mr. Kluender also filed a plea for a more comprehensive zoning system for agricultural as well as residential areas. Each year over one and one-half million acres of rural land are going out of agricultural and forest crop production. "Good lands should be set aside for farming and poorer lands designated for other uses." Mr. Kluender said. "Zoning provides a sound basis for dividing land into residential, industrial, transportation, agricultural and forest uses. If we are willing to spend millions to save our best soils from erosion and mismanagement, then it is also time to give serious consideration to saving it for food and fiber production. Either one or the other is not enough. . . ."

In another forestry address, J. E. McCaffrey, vice president of the International Paper Company, said that salient facts disclosed in the new Timber Resource Review of the Forest Service "reveal the triumph of American conservation." With forestry and the woods industries working together as a team, Mr. McCaffrey said big gains in recent years are largely due to research in tree growing and wood utilization. As a result, the TRR reveals that forest area has increased, commercial forest land has increased, the "size of our wood pile" has increased and the

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volume of wood in forest growing stock has increased. While these are cheering developments, Mr. McCaffrey said "but we must not rest. We have more to do. For its part, industry accepts the challenge of growing more trees to meet rising demands of a growing population—which challenge was also laid down in the TRR."

In a summarization of the big meeting, I. T. Bode, director of the Missouri Conservation Commission, warned that "the public is not going to be pushed around much longer" as regards a mature approach to wise use conservation needs based on long-range planning and coordination in the public interest. Mr. Bode said the public is becoming increasingly wary of declarations of good intentions followed by acts of circumvention. He specifically scored the tendency to "hang a dollar sign" on all phases of conservation which some papers given said represented a maladjusted concept of economics that may lead, ultimately, to a lower standard of living.

More specifically, Mr. Bode scored the feeble effort to date to clean up widespread pollution in the nation's waters. In the parlance of the common man, this situation "stinks," Mr. Bode said. Referring to Mr. McCaffrey's address, Mr. Bode said forestry gains enumerated were encouraging, but then raised the question as to whether the new TRR "doesn't leave us with a false sense of security?" In wildlife management, there must be less yielding to pressures and expediency in "justifying anything we want to do in behalf of wildlife."

For the benefit of those who, like the writer, had never previously attended one of these meetings, it should be reported that this is a truly remarkable affair. While there are many loose ends and different shades of opinion, the ultimate goal, unless we are mistaken, is a united conservation movement in America with all groups compromising their own concepts as necessary to chalk up solid achievement in behalf of conservation as a whole. The chief architect of this program, judging by the New Orleans meeting, is Dr. Ira Gabrielson. His prestige with these representative groups is enormous with most of them fully concurring with photographs published of him on the front page of New Orleans newspapers which referred to him as "Mr. Conservation."

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**THE AMERICAN FORESTRY
ASSOCIATION**
919 Seventeenth Street, N. W.
Washington 6, D. C.

Man Behind the Scenes

(From page 11)

spring in New Orleans. I am confident that this conference will mark the beginning of a greatly intensified cooperative attack on the problem of incendiarism in southern forests.

In all these activities, Don Johnston is usually found quietly working behind the scenes. He is an unassuming person, unselfish and unassuming for personal glory. He's the kind of fellow who is content to remain in the background, yet he is a strong leader, always in there pitching, needling and pushing others out in front to get things done.

Under such leadership, The American Forestry Association should continue to be a strong motivating force for the advancement of American forestry.

Meet the Staff

(From page 26)

Mr. Fred E. Hornaday, secretary of the association for the past 25 years and advertising director for *American Forests*, was elected to the newly-created post of executive vice president. In this capacity, Mr. Hornaday will be concerned with primarily the overall management and operation of AFA.

Kenneth B. Pomeroy, of the U.S. Forest Service, has been named Chief Forester of the association effective July 1. He will have charge of all forest programs of the AFA and will be responsible for interpreting the association's forest policy as laid down by the Program for American Forestry. AFA's conservation department, now headed by Ovid Butler, executive director emeritus, will be under the supervision of Mr. Pomeroy. He will also follow legislative activities on the Hill for the association.

Publishing the monthly magazine, *American Forests* is another major function of AFA.

Pomeroy

(From page 6)

palatable palmetto, where improved pastures may suffer from excessive drought or floods in critical years, and where one million acres of south Florida's slash pine types have been destroyed and denuded due to wild-

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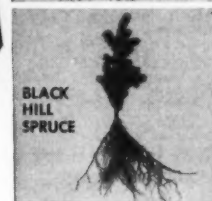
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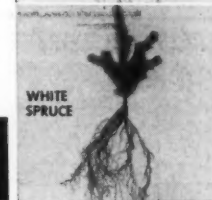
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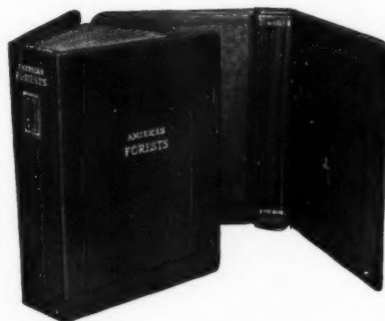
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fires, the need for research appears obvious, Mr. Pomeroy thinks.

Born in Michigan in 1907, Mr. Pomeroy graduated from Michigan State University with a forestry degree in 1928 and obtained his masters degree from Duke University in 1948. As an agricultural representative of the DuPont Company early in his career he had the opportunity of working closely with Larry F. Livingston, a well-known forest engineer, and Alfred Mathewson in carrying on test work that led to the development of Agritol for blasting stumps in land clearing operations and in testing ditching dynamite for drainage work. He also helped to develop a method of settling highway fills across deep swamps by blasting out the muck after a heavy overburden of earth had been hauled into place. This led to a job with the Wisconsin Fill Settlement Company in the winter of 1932 when Mr. Pomeroy put nine freight carloads of 50 percent gelatin dynamite into the Packwaukee swamp on United States Route 51 north of Portage. The road still holds today.

Forestry and the Soil Bank

(From page 27)

planting, growing and marketing a tree crop.

Any farm legislation establishing a forest program should include provision for timber stand improvement work on young stands of existing farm forests, the summary states. "The government might pay the net cost of such practices after deducting the money return, if any, from the sale of the trees removed. By such work on existing forests and woodlots, much presently unhealthy and unprofitable wooded acreage will be brought into a state of profitable production."

The study also stated that "any legislation seeking to establish a conservation reserve should direct the observance of sound conservation standards and practices in its execution. The responsibility of administration of such an operation should, of course, be placed with the Secretary of Agriculture. He should be authorized to utilize the facilities of the Forest Service in establishing sound standards and practices for forest conservation and utilization and of the Soil Conservation Service for establishing sound standards and

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practices in the development of grass, water, and wildlife facilities. He should be authorized also to utilize the Agricultural Stabilization and Conservation Committee, and the State Forestry and Conservation facilities to the extent feasible."

Program for American Forestry

(From page 21)

Professional forestry know-how must be fully utilized.

More forestry students from the upper third of their high school graduating classes is another key need in forestry today, many members think. The present forestry pool is not large enough to supply the needs of industry, now the largest single employer of forestry professionals. Whatever is needed to improve this situation ought to be done, AFA members say. Closer liaison with schools, more attractive salaries—these are things that should be studied and followed through by lay members of the association declare.

Substantial gains have been made, AFA members believe. But very substantial problems are looming on the horizon, in their estimation. Judging by their comments as made at annual meetings and in written communications, members are most impressed by the examples of wood cropping and utilization that they have seen in the Northwest and South in the last two years. They are least impressed by our failure to get on top of the protection problem in many regions, the slow progress in converting small woodland owners, and sharp differences of opinion that continue to arise in the solution of multiple use problems on forests.

All in all, there is considerable evidence that the predominately lay membership of AFA is today demanding answers to many searching questions as the association attempts to chart a course toward its 100th anniversary for the next 20 years.

Letters

(From page 5)

EDITOR:

I have just completed the reading of "Is Farm Forestry On The Wrong Trail" by John F. Preston, in the January 1956 issue of the AMERICAN FORESTS. Although there were numerous things in the article with

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which I did not agree, I would have let them slide by until I reached the part where Mr. Preston attempts to start a "whisper campaign" to the effect that foresters hesitate to simplify forestry techniques for farm woodlands because of a fear that fewer foresters will be needed. Such a statement can spring from nothing less than a lack of knowledge of present day foresters and forestry as a profession. Mr. Preston probably wrote this article at least 15 years ago, revised it slightly and re-submitted it. I am rather surprised that "AMERICAN FORESTS" would print an article so full of mis-statements which were not thought through.

All of us realize that there are not enough farmers who make woodlands contribute a fair share of their income. We also realize that the primary farm forestry job is the development and adaptation of technical practices that can be taught the farmer.

Farm forestry has not made the progress that most of us would like to see. However, I do not believe that Mr. Preston's article recognizes progress made in the past 15 years or will do much to hasten progress in this field.

Ivan R. Martin
Extension Forester
Auburn, Alabama

EDITOR:

Mr. Preston definitely answers the question and is very implicit in his conviction that Farm Forestry is on the wrong trail. Wood cropping, following a simple forest management plan, to provide an annual harvest is heralded as the answer to the farm forestry problem. This approach is not new and has been, and still is, advocated by some foresters generally and by many in specific cases. There are a number of reasons why this approach is not desirable in most farm woodlands, which vary in size from an acre or two up to thousands of acres. Among these reasons why this system will not work generally are the following:

1. Even relatively simple operations, such as falling a tree and bucking it into logs, veneer blocks, poles, etc., are highly specialized jobs, of course not technical, but nevertheless specialized. An experienced felling crew with a cross-cut saw, can accomplish four times as much in a work day as the average crew that can be picked up on the farm. In addition, there is no waste of valuable timber from splintering and improper lengths commonly resulting from work by inexperienced crews.
2. Equipment required to efficiently manufacture forest products is no minor consideration. Requirements for even the very primary processing are considerable. The further the processing is carried, the greater the investment. These investments cannot always be justified for seasonal or part-time use.
3. Marketing of products is another important consideration. Prices paid for standing timber is often proportionately higher than prices of some products delivered to a processing plant. For example: The going price of an 8 inch pine log delivered to a plant in this section of South Carolina is \$50 to \$55 per M board feet, Doyle Scale. This log is worth 80c to 88c, delivered. These same companies pay about \$35 per M board feet, Scribner Scale, for these logs on the stump. This makes the log worth \$1.12, standing in the woods.

In some cases, Preston's ideas will work, but generally this is not true. The serious fault lies in the one-sided, blind approach, with the thought that one simple approach is the answer to the farm forestry problem. Forestry is a profession, there is a definite need for it on farm woodlands, and the program should continue to be handled through guidance by technically trained foresters.

H. F. Bishop
Consulting Forester
Marion, South Carolina

Mr. President

(From page 11)

to shirk our responsibilities on this study," he said in revealing that cheering new developments on this may be announced soon. "If we are going to protect these forests we will require an impartial analysis of the whole forest land ownership pattern in its relation to people and their needs that will enable us to speak realistically and authoritatively on these various pressures and problems as they arise. In Sam Dana (Dr. S. T. Dana, of the University of Michigan) I think the Good Lord sent us the right man at the right time to head up this study, for there isn't a cooler head in forestry or a sounder one. The first time I ever saw Sam Dana was in 1908. He was just a kid in forestry school and he was visiting the Prescott National Forest in Arizona. That was the summer of the Crown King Fire and Sam got right in the middle of it. I recall he was

wearing a white shirt, but we all remarked the cool, matter of fact way he went about the job of helping us fight the fire. He never got excited, never lost his head, but by the time we were done that was the dirtiest white shirt I ever saw."

In talking of forestry, Mr. Johnston invariably goes back to those early days when he worked on national forests for 12 years. (See Mr. McArdle's story on page 11.) Like Teddy Roosevelt, he first went West for his health after attending Ohio State University in Columbus, Ohio. During those early years and since his trail has crossed that of most of the great and near great in forestry, but it is the late Henry S. Graves, former chief of the Forest Service and The American Forestry Association, that he remembers with the most affection.

"Graves was a great Chief," Mr.

Johnston recalls. "Sometimes west-erners marked him down as a Yankee school teacher and tended to underestimate him—which was always their mistake. Because underneath the polish, there was a tough cookie—when he had to be. The first time I met him was when I was supervisor of the Gila National Forest. He came out to Silver City, New Mexico, to help me straighten out the problem of getting the livestock people under permit. We did too. They brought all their brand records and books to a dinner we gave for them and showed that it was to their advantage to have their cattle under permit."

Mr. Johnston first met Ovid Butler, former AFA executive director, in New Mexico when both were assistant regional foresters. When Mr. Butler later went to the Madison Laboratory under "Cap" Winslow, Mr. Johnston later joined him there to set up an operations office to help handle the influx of scientists from all over the country who worked at the lab during World War I. However, when Chief Graves later urged Mr. Johnston to come to Washington as chief of operations, he declined, still conscious of his health. Moving on to the California region, Col. (later General) "Hap" Arnold was Mr. Johnston's pilot and together the two men worked out the first aerial fire patrol out of Marsh Field. Another participant in this venture was General Robert Kauch, now of Washington, D. C., and an enthusiastic Trail Rider.

Like the other old timers in the Forest Service, Mr. Johnston's experiences were many and varied. It was a period when dedicated men in a new service were trying new and different ideas and Mr. Johnston was no exception. For six months he never saw a white man as he carried on a water and fuel survey for the

Navajo Indian Reservation. He still likes Indians although he wryly recalls how they would squat around his campfire keeping him up to all hours talking. He can also take credit for the installation of the first wireless telephone in the Forest Service from the South Rim to the North Rim of the Grand Canyon. Setting up the boundaries of Grand Canyon National Park was another service he helped to carry out as a member of the inter-departmental commission on boundaries of National Forests, National Monuments, National Parks and Indian Reservations.

When Mr. Johnston went into business for himself, he first entered the turpentine business in Florida and later became president of the Royal Cotton Mills, Wake Forest, North Carolina, a position he held until 1945. Upon retirement from business, he promptly threw all his energy into forestry once again and became president of the North Carolina Forestry Association, which position he held from 1948 to 1951. Meanwhile, he became a director of The American Forestry Association and in 1952 became its president.

According to long-time members of AFA, no president in the history of AFA has ever devoted so much time and personal attention to the affairs of the organization as has Don Johnston. Like the late Clark Everest whom he greatly admired, Mr. Johnston believes the association must play an important part in helping to solve future resources problems—if they are going to be solved in the interest of everybody. Staff members relish his tart sense of humor and have noted that as a working president he does more "listening" than he does "talking." He also has a prodigious memory. Under him, the association has grown steadily and last year alone added over 1,000 new members to the roster.

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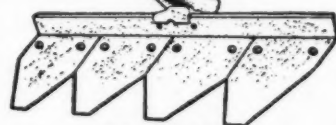
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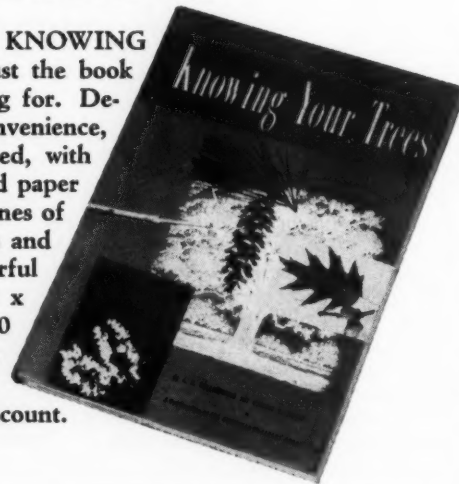
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Our Native Magnolias

(From page 31)

strongly fragrant flower lasts for two or three days when the petals fall away, revealing the cucumber-like fruit, which later splits open and discloses the scarlet seeds.

The wood of this magnolia is used for furniture and for venetian blind slats because it is easily worked with tools and is largely free from warping and twisting.

Bigleaf Magnolia

(*Magnolia macrophylla*)

This tree is noted for its enormous leaves, often 20 to 30 inches in length by nine to ten inches wide, and the correspondingly large flowers ten to twelve inches across. When the tree is in full bloom the creamy white flowers, framed by the bright green leaves at the ends of the stout branches, produce an impression of gorgeous beauty one is not likely to forget. Sometimes growing to a height of 50 feet, it is a stately tree with horizontal wide-spreading branches forming a wide-topped head. It has not been widely planted as an ornamental although said to be hardy as far north as Massachusetts where it takes on the form of a large shrub up to 20 feet in height. It flowers in early summer and when only a few years old.

The native habitat of this tree is in the sheltered valleys and slopes of the Southern Alleghenies. It is not adapted for the small place but is desirable as a single specimen in a spacious setting, including parks. Protection is needed from the wind which otherwise may tear the leaves and render them unsightly.

Ashe Magnolia (*Magnolia ashei*) is a species very similar to bigleaf magnolia with somewhat smaller flowers, found in northwestern Florida and eastern Texas where it grows in deep, sandy soils near streams in contrast to bigleaf Magnolia which is found in drier situations, often in open woods well away from streams.

Sweetbay (*Magnolia virginiana*)

Growing naturally from New Jersey south along the coast to southern Florida and west to eastern Texas, this is the smallest of our native magnolias. In the southern part of its range it is a tall, straight, evergreen tree as much as 60 feet in height, but farther north it is shrub-like and loses its leaves in the fall. Most commonly seen as a shrub or tree six to twenty feet high, it is

noted for the beauty of its foliage and flowers. The shining upper surface of the thick leaves, three to six inches long, provides a beautiful contrast to the silver sheen of the lower surface when it is turned up by the wind. The cup-shaped or globular pure white flowers, two to three inches in diameter—the smallest of our native magnolia blossoms—are often concealed by the outspread foliage but their pleasing fragrance betrays them and gives the tree its name.

As a shrub, sweetbay is very desirable for small places. It grows rapidly, more or less erect when young but often broadening out into an attractive lawn specimen. The sweet-smelling flowers are borne from late spring through much of the summer and young trees often retain their leaves until spring.

Sweetbay grows in moist and even wet situations in its natural habitat and is often called swamp bay. Although it adapts itself to average conditions, the drier locations should be avoided in its culture.

Umbrella Magnolia (*Magnolia tripetala*)

The name comes from the way the large leaves, 12 to 20 inches long, radiate like an umbrella at the ends of the branchlets. These provide a setting for the flower which measures from seven to ten inches when fully open. The tree is said to start blooming when quite small; it is of medium size, 30 to 40 feet high, with a short, sometimes inclined trunk and heavy ascending branches, forming a round, rather irregular, open head. The conspicuous, cup-shaped flowers have a rather heavy unpleasant odor. It is a handsome tree and is said to be hardy as far north as Boston. Because of the large leaves it is not considered suitable for small landscapes. It grows naturally in the Appalachian Mountain region, mainly along mountain streams and in sheltered locations. Deep, moist soil is required for its best growth.

Fraser Magnolia (*Magnolia fraseri*)

This is another large-leaved magnolia of the Appalachian Mountain region where it may often be found hanging over the rushing waters of mountain streams, which gives it the name "mountain magnolia." The tree attains a height of 30 to 40 feet, sometimes with a leaning trunk. The wide-spreading, erect branches form an open, often irregular head, but it may also take on the form of a broad shrub with several stout,

diverging stems. The leaves, ten to twelve inches long, are thinner and smaller than those of bigleaf magnolia but grow much larger on vigorous young plants. They resemble those of bigleaf magnolia in that a small lobe or "ear" is located on each side at the base which gives the tree another name—"ear-leaf cumbertree." The yellowish-white flowers, eight to ten inches across, appear with the leaves in early summer and, as in the umbrella magnolia, the large leaves, clustered at the ends of the branchlets, serve as an attractive background. The flowers are fragrant but the odor is considered unpleasant by some.

The tree has been grown as far north as Boston, but requires sheltered situations in this location. Because of its large leaves, extensive grounds are needed to give it an appropriate setting.

Pyramid Magnolia (*Magnolia pyramidata*)

This species resembles the Fraser magnolia but has smaller leaves and flowers. It grows naturally in the neighborhood of streams from South Carolina to northwestern Florida and southeastern Louisiana. The leaves, with "ears" or lobes at the base, similar to those of the Fraser magnolia but much smaller, measure from five to eight inches long and three to four inches wide near the tip; the white flowers range from three to five inches across when fully expanded.

It is a slender tree, 20 to 30 feet high, with ascending branches and slender branchlets, which give the tree a pyramidal form, whence its name. Although not commonly used as an ornamental in the United States, it is grown in western Europe and would seem to be a desirable substitute for Fraser magnolia on the small place.

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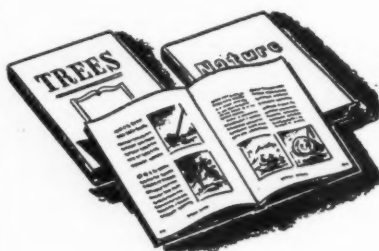
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Reading About CONSERVATION

By ARTHUR B. MEYER

THE questions that face conservation today are not so much involved with what needs to be done as they are with how to get people to do what needs to be done. Practice and application lag behind science and techniques.

In this situation the need for education, for enlightened self-interest, for unselfish social service are all recognized. Yet it is apparent in the writings of leaders in the conservation field that they sense the need for something more than these. Also Leopold called this need to be the adoption of a "Land Ethic." (Leopold says, "An ethic, ecologically, is a limitation on freedom of action in the struggle for existence. An ethic, philosophically, is a differentiation of social from anti-social conduct.") Louis Bromfield develops "the principle of Reverence for Life." Paul Sears says that an "attitude" is essential to conservation in addition to a concept and a cause. Samuel H. Ordway, Jr. in his new book *Prosperity Beyond Tomorrow* (The Ronald Press Co. 1955, 208 pp. \$3) in his turn calls for the evolution of an ethic that will guide man's use of the natural resources. He goes further. He suggests that we are presently faced with an opportune time to develop it and that, in fact, this is not only the best chance but also about the last one.


This is a thoughtful and encouraging book. Its theme goes something like this. It appears likely that our prodigious economy will continue to expand for the next three to seven decades. During this period we will have a great deal more wealth than ever before and a great deal more free time than man has ever dreamed of. This period of expansion will draw to a close when the raw materials of industry begin to become scarce or too costly to extract. Drastic increases in world population will parallel this industrial

hey day. There will be greatly increased pressure on forests, soils, water supplies, wildlife, and open spaces. We will probably be able to synthesize certain raw materials and may discover new sources of others but it is only a question of time. At our present and anticipated spend-thrift rate there can be no result but exhaustion of nonrenewable resources and expenditures of renewable ones at a rate exceeding their replacement. Most certainly we could not continue to live in the style to which we had become accustomed.

However, during this 30- to 70-year period we will be given an opportunity to avoid the inevitable. We will have a chance to control population and to extend a reasonable and prudent prosperity into the indefinite future. This opportunity will arise from the fact that we will have not only wealth but time to turn our attention to other matters than feeding ourselves or acquiring wealth.

With a reduced work week, people will turn to the out-of-doors for recreation. A greatly renewed interest in the out-of-doors will develop, and as few of us would wish to relax three or four days a week, the circumstances will be ripe to gain public support and participation in activities and programs directed toward conservation of the renewable resources. Such participation would in turn make apparent the necessity of controlling populations within the capacity of the resources to support populations. It would also make it apparent that extravagant production of material things is not essential to either welfare or happiness.

We may sometime, the author suggests, have a world where a self-regulated population remains in balance with the earth's power to produce the necessities and a reasonable



What's NEWS across the nation

ARIZONA LAST MONTH WAS WITNESSING one of the largest sales of land in the history of the state as the Southwest Lumber Mills, Inc., of Phoenix, Arizona, and other firms negotiated for upwards of 100,000 acres of land formerly in the Coconino and Sitgreaves National Forests. The Aztec Land and Cattle Company gained title to these lands in 1952 after a lengthy court battle. The American Forestry Association opposed sale of these lands to private owners and recommended that they be restored to the national forest system where they might be managed as an integral unit. However, bills to effect such a return were blocked in Congress after which the Aztec Company announced that the Forest Service episode covering 50 years was a "closed book."

THE AZTEC LANDS CONSIST of alternate sections of forest land checkerboarded through areas in the Coconino and Sitgreaves forests. Previously, Southwest's president, J. B. Edens, had urged the return of the lands to the Forest Service. "In our opinion," Mr. Edens said, "it would not be feasible to manage and log these lands economically in view of the extremely costly road building procedure and other obstacles, without at the same time logging the alternate Forest Service lands." However, last month, Southwest had purchased 87,000 acres of the tract and other firms had obtained smaller amounts.

HOW WILL IT WORK? According to Mr. Edens, there will be no increase in sawmill operations and a major effort will be made toward stabilizing employment and economy in existing communities. Southwest will confer with stockmen on agreements for grazing where feasible. While no policy has been decided as regards hunting and fishing, the company said it will cooperate with sportsmen's groups and saw "no reason why hunters and fishermen would be barred from the lands." More than half the trees will remain after logging operations, Mr. Edens said, and efforts will be made to time logging operations with those of the Forest Service on adjacent national forest lands. The Forest Service has already approved his plans for cutting, Mr. Edens indicated, and will "mark the trees to be left uncut on Company lands and is discussing cooperative arrangements for protecting the area from forest fires." The company stressed that under its program, water, game, forest and other conservation values will be fully protected. Congressman Stewart Udall, of Tucson, who campaigned vigorously to restore the lands to the national forests, said last month, "There is a satisfaction for me in knowing that if the land must be lost to the public domain, it is going to be owned by Arizona people who are familiar with the sustained yield method of harvesting Arizona's forest resources and who fully believe in it. I am gratified that—as I have been informed—Southwest will follow the Forest Service recommendations and practices in harvesting the marketable timber in this area, following sound conservation practices and using the self-restraint necessary if our state's forests and watersheds are not to be harmed."

WILL THIS PROGRAM WORK IN THE PUBLIC INTEREST? The American Forestry Association opposed the sale of the lands to private interests because it believed it would not. As a result, considerable national interest has been focused on the Aztec lands case. AMERICAN FORESTS is reliably informed that Mr. Edens, who has been an Arizona lumberman all his life, is a scrupulous practitioner of sustained yield methods. The big question to be solved now appears to be "can a private firm or firms fully protect and develop all the other multiple use values carried on by national forest programs?" After allowing an interval for the new program to get under way, AMERICAN FORESTS hopes to fully explore this matter.

(Turn to next page)

STOP HAGGLING OVER TECHNICALITIES IN THE TIMBER RESOURCE REVIEW that will detract from rather than contribute to a favorable public opinion, Lowell Besley, executive director-forester of The American Forestry Association told a Paper Week audience last month in New York City. Speaking at the annual meeting of The American Pulpwood Association, Mr. Besley characterized the Forest Service's study as the "most complete, accurate, usable and optimistic" report on the nation's timber supply ever released to the American public. Dr. Albert C. Worrell, of the Yale School of Forestry, was another speaker who lauded the report as the most complete and accurate to date. Speaking for the Association of State Foresters, A.D. Nutting, Forest Commissioner of Maine, stressed that the report brings the small ownership problem and its importance to national timber supplies sharply into focus. In view of the fact that small owners control 60 percent of America's available commercial forest land, the study shows that now more than ever cooperation must be the keynote if appropriate management advances are to be made, Mr. Nutting said.

SOIL BANK-FORESTRY PROVISIONS IN THE OMNIBUS FARM BILL LAST MONTH were labeled as "unwise, impractical and wasteful" by A. Z. Nelson, forest economist for the National Lumber Manufacturers Association. Mr. Nelson said the measures would "burden farmers with more federal controls, penalize self-financed tree planters, waste taxpayers' money, and discourage private forestry responsibility and enterprise." The Soil Bank proposals as recommended by President Eisenhower are embodied in what has been labeled a "Conservation Reserve" that would encourage farmers to take acres out of agricultural production and put them into trees, grass or water conservation in an effort to whittle down huge agricultural surpluses. However, the program is seen by Mr. Nelson as the "most costly program of forest tree planting this country has ever witnessed." He also predicted that every dollar of government subsidy will be accompanied by more than a dollar's worth of federal control and supervision. "Eventually," he said, "the farm tree grower may regret trading his independence for government dollars." In pressing for enactment of the Soil Bank Program the President last month won a resounding victory when the Senate voted to lop off 90 percent parity supports for agriculture out of the bill. The Senate action was the result of a call by Senator Clinton Anderson, of New Mexico, a former Secretary of Agriculture and a Democrat who had disagreed with members of his party who had urged restoration of supports Agriculture Secretary Benson is opposed to.

THE WILDLIFE REFUGES FARED BETTER WITHOUT A STOP ORDER THAN THEY DID WITH ONE the Conservation News of the National Wildlife Federation reported last month in revealing that 555 oil and gas leases have been issued on wildlife lands, all but 11 of them apparently granted during the "Stop Order" of Secretary McKay for the purpose of studying the situation. "The larger figure had been hidden through the device of classifying some of the refuges as 'game range lands' instead of 'wildlife refuges'," the News said, adding that "the difference is more technical than real." This information was revealed in the course of hearings before the House Committee on Merchant Marine and Fisheries as contained in a letter addressed by Assistant Interior Secretary Wesley A. D'Ewart to Bernard J. Zineke, Committee counsel. Question that has now been raised by wildlife organizations is: Does the law under which these leases were written constitute a directive from Congress that they shall be granted or are the statutes so written as to give the Secretary of Interior the discretionary authority to accept or to reject any or all applications for the drilling of oil and gas? The National Wildlife Federation contends that previous court decisions affirm the Secretary's broad discretionary powers in the matter of oil and gas leases.

THE TEXAS FORESTRY ASSOCIATION has offered a reward of \$250 for information leading to the arrest and conviction of individuals who willfully set fire to east Texas woodlands, Executive Secretary E. R. Wagoner has announced. The association hopes the offer will help to reduce the total number and the extensive damage caused by incendiary fires in east Texas. In 1955, 484 of the 2,134 fires and in 1954, 1,160 of the 4,184 fires were classified as incendiary in east Texas. Woods arsonists frequently work at night under the cover of darkness when fires are difficult to suppress, Mr. Wagoner said. In east Texas, setting woods fires deliberately is a felony. Upon conviction, defendants can be fined \$100 to \$1,000 and also can be confined in the state penitentiary for a period up to five years. The address of the Texas Forestry Association is Box 1032, Lufkin, Texas.

amount of the good things of life. This situation would involve the application of scientific, technical, and social knowledge toward that end, but it would be primarily dependent upon the general acceptance of man—resource relationships based upon ethical standards not as yet adopted by a too materialistic civilization.

In one or two places, such as "there can never be sustained cutting of giant redwoods" there is room to quibble with the author as to his estimate of what technical work can accomplish. But this is rather beside the point of his major and much larger theme, one of resources, people, and human motivations.

If we reach the goal of a "Land Ethic" or a "Reverence for Life" or whatever you want to call it, a major necessity is for more people to know more about the out-of-doors. Experience is necessary, of course, but books can help, especially books such as Rachel Carson's *The Edge of the Sea* (Houghton Mifflin. 276 pp. \$3.95).

"The edge of the sea is a strange and beautiful place. All through the long history of earth it has been an area of unrest. . . . Not only do the tides advance and retreat in their eternal rhythms, but the level of the sea itself is never at rest. . . . Today a little more land may belong to the sea, tomorrow a little less. Always the edge of the sea remains an elusive and indefinable boundary."

Miss Carson became famous with her book *The Sea Around Us*. Her followers will not be disappointed with *The Edge of the Sea*. Though the scope of the subject is somewhat less majestic than one of such magnitude as the sea itself, it is nonetheless a grand one. The strip of earth that is alternately exposed and flooded between low and high tide is to anyone a land of fascination and a peephole into the dark depths of the ocean. To a trained biologist it is a parade ground of the processes of evolution and the threshold across which life forms emerged, and are still emerging, from the womb of the sea. To Miss Carson this strip is also, to the enrichment of her readers, a place where with each visit she gains "some new awareness of its beauty and deeper meanings."

The Edge of the Sea does not ramble the whole beaches of the world but describes in detail the three major divisions of the North American Atlantic coast. It thereby gives a sample of three environments that are representative of the world: new-

ly formed, rocky coast lines; older, smoother beaches of sand where sea joins land; and coral coasts. These zones lie in turn north of Cape Cod, from the Cape south, and in the tropical waters of Florida. Each has its geologic history. Each has beach life peculiar to it. Each has a marvelous diversity of plants and creatures that would escape the eye of most of us but that is exposed to the trained and sensitive eye of the author. In the sands of the great beaches, there is a teeming horde of life that adjusts its comings and goings to the ebb and flow of the tides as we do to the rising and setting of the sun. Off the living coral of the tropical coasts the warm seas permit glimpses of the strange creatures in their depths. Seaweed, barnacles, mussels, and snails cling to the rocky shores of the North. All these the author shows the reader with scientific accuracy and with a writing craftsmanship that has won her renown as a literary great.

We land creatures think of the sea as a desolate and inhospitable environment for life. Yet to its own it offers a "climate" far more encouraging, more uniform, and reliable than the proudest chamber of commerce can produce ashore. Even more strikingly, Miss Carson shows its briny, choking waters to be an incubator of life forms, where birth is given to a million in order that an individual may survive. In the shifting border where the land meets the sea we may observe not only the movement of water but a surging stream of life, lapping on the land. Some forms have through endless generations crawled across the few yards that mark high and low tide levels and have braved the dryness, the cold and heat, the scarcity of food, and evolved into land creatures. Others are in transition, spending part of the life cycle in, part out of, the sea. Still others wash up on the beach and die, deep water forms far from their natural habitat, brought by misadventure to the hostile frontier strip of the land.

This book serves two purposes. First, it gives the reader a broad acquaintance with the edge of the sea, a detailed knowledge of many of its inhabitants, and reason to wonder at its "deeper meanings." But it is also a practical guide to identifying plants and animals of the shore. It is expertly illustrated by Bob Hines of the U. S. Fish and Wildlife Service. Illustrations are placed in text so that words and pictures supplement each other.

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Feature Photo of the Month

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FIRES OF INCENDIARY ORIGIN THAT ARE ONCE AGAIN THREATENING
SOUTHERN FORESTS. LATE MARCH POINT TO NEED FOR A CON-
TINUING AND HAR-
DOUTGROWTH OF F
AT NEW ORLEANS

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A 17-YEAR OLD LIVINGSTON HIGH SCHOOL STUDENT TODAY WAS SET FREE
BY JUDGE FANNIE BURCH AFTER HE HAD PLEADED GUILTY TO A CHARGE
OF ROBBERY

WESTERN UNION

THE FOREST FIRE STANDPOINT
LOUISIANA WITH 1538 FOREST
ACCORDING TO STATE FOR-
DURING

NOT FOLD

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FIRES CONTINUED

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W. P. MARSHALL, PRESIDENT

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1201

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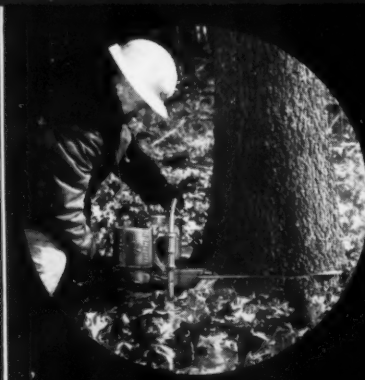
1956 MAR 27 PM 2 13

COLUMBIA COUNTY FIRE 80,000 ACRES. STARTED FROM
SMOLDERING CONTROL BURN OF FEBRUARY 24 BROKE OUT
MARCH 15. BIG FLARE-UP PM MARCH 24. 200 MEN ON FIRE.
PRESENT CONDITION FIRE SWEEP INTO GEORGIA. NUMEROUS
HEADS ON NORTH AND EAST. WINDS FROM SOUTH AND WEST.
SOUTH AND WEST LINES HOLDING. SOME PROGRESS ON NORTH
LINES BY GEORGIA CREWS. EAST LINES NOT CONTAINED. VERY
POOR VISIBILITY. LAFAYETTE COUNTY FIRE INCENDIARY
ORIGIN 50,000 ACRES UNDER CONTROL. BOTH FIRES IN GOOD
TIMBERLAND AREAS. OTHER FIRES YESTERDAY 54 FIRES
1,340 ACRES. NO REPORT AS YET CONCERNING CAUSES=
J EDWIN MOORE CHIEF INFORMATION &
EDUCATION FLA FOREST SVC=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

THE SOUTH'S CONTINUED STORY—Fires and more fires point to the need for a coordinated and determined effort to curb wildfires in southern forests. The fire conference in New Orleans this month will be a first step. But the effort should not stop in Louisiana

New HOMELITE EZ



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with ALL of the features YOU want

Only 19 pounds
Full 5 Horsepower
New Low Cost
Faster Cutting Speeds

AND WITH THE NEW HOMELITE FLOATING POWER, you'll find handling ease you never knew before. The all-angle, any-position carburetor gives you full power cutting — whether you're felling, bucking, notching, limbing or under-cutting.

Floating Power lets you cut with less effort, less fatigue than any other chain saw. Because the Homelite EZ weighs only 19 pounds you can carry it anywhere. Its full 5 horsepower cuts through 8" Oak in 5 seconds and 18" Pine in 14 seconds. And the three bar sizes — 17", 21" or 25" will handle trees up to 3 feet in diameter.

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This D9 heads a line-up including a D8, D7 and D6 building 18 miles of road for Oliver & Oliver Logging Company in mountainous country near Thompson Falls, Montana. The road will tap at least 50,000,000 bd. ft. of timber on U. S. Forest Service land.

**CAT* D9 TRACTOR WITH NO. 9A BULLDOZER PIONEERS ½ MILE OF
14-FOOT ROAD PER 8-HOUR DAY IN LOLO AND KANIKSU NATIONAL FOREST**

When you're faced with a tough road building job, you'll find it pays in time and money saved to use a giant—the 286 HP, 58,725-lb. Cat D9 Tractor. That's what the Oliver & Oliver Logging Company is doing on this show in the Lolo and Kaniksu National Forest near



JOHN W. OLIVER

Thompson Falls, Montana. This company has a contract to construct 18 miles of main haul road from Graves Creek to Vermillion River, with grades up to 5% on one side of a 6200-foot divide and up to 9% on the other side. In rocky, stumpy going, the D9 is pioneering ½ mile of 14-foot road per 8-hour day. Here's a report from co-owner John W. Oliver:

"We've been using all Caterpillar-built equipment since 1945. We log in rough, mountainous country. We've built roads where we didn't have any dirt for half a mile. Our equipment has handled the work with a minimum of repairs.

"The D9 is just what we need for pioneering roads in this country. It's so big and powerful it handles material a smaller tractor can't begin to handle. In steep

cuts it pioneers almost twice as fast as the D8—and until the D9, the D8 was our biggest producer!"

Building roads, firebreaks or fighting fires, there's a definite place in any equipment line-up for the giant D9. The first track-type tractor with a Turbocharger, it has an engine with power aplenty to match its weight and traction. With booster controls, it handles as easily as smaller tractors. To meet your needs, you have a choice of torque converter or direct oil clutch drive. Your Caterpillar Dealer will be glad to give you complete facts about the new boss of the woods!

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